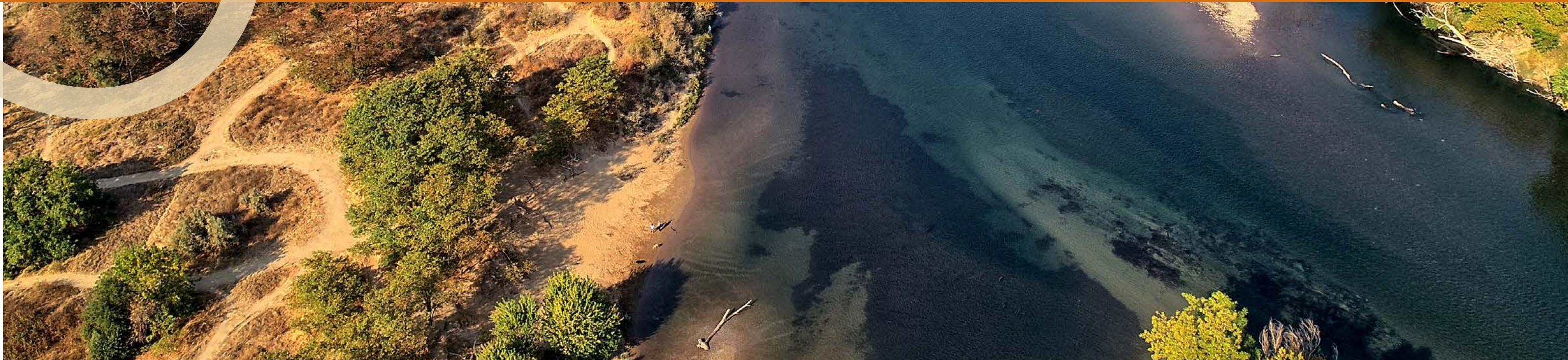




PARKWAY SETTING

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CHAPTER 3

INTRODUCTION AND OVERVIEW



Nestled in the southernmost portion of the Sacramento Valley between the Sacramento-San Joaquin Delta and the Sierra Nevada foothills, the Parkway is a regional greenbelt with significant natural, cultural, and recreational values. It is the largest parkway and one of the largest public open spaces in Sacramento County at 29 miles in length, and it follows the Lower American River (LAR) through a highly urbanized area between Folsom Dam to the east and the Sacramento River to the west.

The NRMP focuses on the roughly 23-mile segment of the LAR between Hazel Avenue and the confluence of the American River and the Sacramento River. Below the LAR, the Sacramento River flows into the Sacramento-San Joaquin River Delta, which ultimately empties into the San Francisco Bay and Pacific Ocean through the Golden Gate Strait.

The LAR's confluence with the Sacramento River is the outlet point of the massive American River Watershed, which encompasses over 1,900 square miles and extends through the Sierra Nevada foothills to the crest of the range at elevations of over 7,000 feet. This watershed is drained by a multitude of streams and rivers that converge into the North, Middle, and South Forks of the American River. These drainages



empty into Folsom Lake, a reservoir along the border of El Dorado and Sacramento Counties. In addition, there are numerous smaller tributaries that flow directly into the LAR from local drainages on the Sacramento Valley floor.

Historically, the LAR corridor consisted of a dynamic and free-flowing main channel and side channels and a contiguous mosaic of habitat types. The Nisenan Maidu, the earliest known human inhabitants of the Parkway, utilized the Parkway's resources, including its abundant flora and fauna, and sometimes actively altered the Parkway landscape. In recent history, agriculture, mining, urban development, and the construction of the Folsom and Nimbus Dams altered the Parkway setting to the extent the LAR channel now navigates an almost fully urbanized metropolitan area.

While the Parkway is no longer the wholly natural corridor it was in the past, it retains naturalistic features that attract recreationists, scientists, nature-lovers, regulatory authorities, and descendants of the Native American Indian tribes alike. Its mixture of biological, cultural, physical, and recreational resources makes it a hotspot of recreational activities and events, educational programming, floodway and utilities infrastructure, and habitat mitigation and restoration projects. The Parkway is arguably one of the most "naturalized" (i.e., approximating, but no longer completely natural) open space facilities in Sacramento County, and it serves important ecological functions in the California Central Valley. The Parkway allows visitors from near and far an opportunity to enjoy expansive, near-natural environments in a highly urbanized setting.

Although the Parkway lies within a fixed boundary, the river corridor is inherently dynamic, and management of its natural resources must account for the ever-changing



The Harold Richey Memorial Bicycle Bridge in the Arden Bar and River Bend Park Areas. Photo Credit: Regional Parks

conditions associated with river geomorphology, the impacts of human use, and a changing climate. The current conditions of the Parkway are described here in terms of the physical features of the river corridor, past and present land uses, and the characteristics of each distinct management area (known as "Areas" in the Parkway Plan). Section 3.1 Physical Setting provides the overall geographical context of the Parkway; Section 3.2

Regulatory Setting describes the federal, state, and local governmental agencies with interests in the Parkway. Section 3.3 describes Parkway land uses followed by a discussion of the areas within the Parkway (Section 3.4). Finally, the contribution of the Parkway to regional conservation goals is described (Section 3.5) followed by a discussion of climate change (Section 3.6).

3.1 PHYSICAL SETTING

The varied topography of the Parkway includes uplands, floodplains, bluffs, banks, and the river channel itself. Elevations within the Parkway range from 466 feet (at maximum water level) at Folsom Lake to roughly 25 feet at the confluence with the Sacramento River (California Department of Parks and Recreation (State Parks) 2019; United States Geological Survey (USGS) 2019). Much of this topography has been altered by both geomorphic processes and human use of the river corridor, including past gold, hydraulic, and aggregate mining operations along the river that created significant areas of disturbed land and dredge tailings.

The Parkway's landscape is relatively undeveloped, though manmade structures including recreational facilities, interpretive centers, kiosks, utilities buildings, and infrastructure are located throughout. Major vegetation types occurring within the Parkway include valley and foothill grassland, oak woodland, and riparian vegetation, including cottonwood forests, mixed riparian forest, and riparian scrub.

The Parkway is surrounded by urban development, particularly the lower six miles, and suburban development along its upper reaches. Lands and developments associated with the Cities of Sacramento and Rancho Cordova, and unincorporated Sacramento County communities (including Carmichael, Fair Oaks, and Gold River) border the Parkway. Adjacent residential, commercial, and industrial land uses form an extensive wildland-urban interface along most of the Parkway's boundaries. While this proximity can create natural



Cyclists on the Jedediah Smith Memorial Trail in the Howe Avenue Area. Photo Credit: Regional Parks

resources management challenges for the Parkway, the surrounding urban context also highlights the regional importance of the open space corridor for conservation and the recreation opportunities that it provides. Knowledge of these physical attributes and current uses

of the Parkway, as well as an in-depth understanding of the existing ecological, cultural, and recreational resources along the river corridor, will directly inform future management actions.



3.2 REGULATORY SETTING

The Parkway's regulatory setting dictates how its natural resources are managed. Local, regional, state, and federal plans, laws, regulations, and agencies play a role in establishing limitations, setting priorities, and ultimately guiding what can and cannot be done in the Parkway. This section consists of an overview of the regulatory framework that shapes management of the Parkway.

3.2.1 Applicable Federal Regulations

U.S. Army Corps of Engineers (USACE)

USACE is the administering agency of Section 404 of the Clean Water Act (CWA). Section 404 of the CWA requires a permit for the discharge of dredged or fill material into waters that are "navigable" or connected to a navigable waterway, such as wetlands, rivers, and streams of the United States, unless a project or activity (e.g., some farming and forestry activities) is found exempt from regulation. USACE reviews permit applications and, if found permissible under the program, approves the proposed activities, which may include infill development, dams, levees, infrastructure, and mining projects. In addition, USACE sets the standards for levees nationwide. Construction and dredge/fill activities proposed to take place within and may potentially impact the Parkway's creeks, streams, wetlands, or the river require review and authorization by USACE (Sacramento County 2008b). In addition, see the U.S. Code Section 408 subsection below for discussion on proposed alterations to USACE projects.

Specific to the Parkway, USACE is managing the American River Common Features (ARCF) 2016 Project as a cooperative effort between the U.S. Army Corps of

Engineers (USACE), Sacramento Area Flood Control Agency (SAFCA), and Central Valley Flood Protection Board (Board). ARCF includes construction of seepage remediation and levee raises along four stretches of the American River.

U.S. Bureau of Reclamation (USBR)

USBR oversees the operations of Folsom Dam, Nimbus Dam, Folsom Reservoir, and Lake Natoma under the Central Valley Project (CVP), a series of flood control, water storage, and power generation projects authorized by the California State Legislature in 1933 and initiated in 1937 (Bureau of Reclamation 2020). Through operating the Folsom and Nimbus Dams, USBR manages the LAR's river flows. No activity proposed to take place within or adjacent to the Parkway is permitted to interfere with operations of the Folsom Dam or Nimbus Dam.

Clean Water Act (CWA)

The CWA was adopted in 1972 to protect surface water habitats from adverse impacts, such as water pollution, associated with development activities. The sections of the CWA are administered in California by either USACE, the State Water Resources Control Board (SWRCB), or the Regional Water Quality Control Board (RWQCB). Section 404 of the Act is administered by USACE for the purpose of regulating the discharge of dredge or fill into navigable waters and their tributaries (Sacramento County 2008b).

The National Pollutant Discharge Elimination System (NPDES) program was established by Section 402 of the CWA to regulate "point source" (a fixed facility or other location that can be identified as the source of a pollutant) discharges, such as wastewater treatment plant discharges



TOP Boat ramp in the Howe Avenue Area. Photo Credit: Regional Parks

BOTTOM Fish statue at the Nimbus Fish Hatchery. Photo Credit: MIG



Picnic shelter and gazebo in the Discovery Park Area. Photo Credit: MIG

and stormwater runoff, into surface waters. The Central Valley Regional Water Quality Control Board (Central Valley RWQCB) administers Section 402 of the CWA in the Central Valley Region. The Central Valley RWQCB issues permits to industrial facilities, construction sites, and municipalities (such as counties and cities) to regulate runoff and discharges. The County of Sacramento, along with several local cities, maintains a Municipal Stormwater NPDES permit, which requires the County to develop, enforce, and monitor the results of ordinances and programs intended to minimize entry of pollutants into surface waters (Sacramento County 2008b).

Implementation of the NPDES program impacts the water quality of the LAR and its tributaries in the Parkway.

Construction and improvement activities taking place within and adjacent to the Parkway must comply with the County's ordinance requirements, including Erosion Control Ordinance standards, to reduce pollution of water runoff and discharges (Sacramento County 2008b).

U.S. Code Title 33 Section 408 (Section 408)

U.S. Code Title 33 Section 408 (Section 408) (the amended and codified Section 14 of the Rivers and Harbors Appropriation Act of 1899) allows the Secretary of the Army, upon recommendation of the USACE Chief of Engineers, to permit the alteration of a public work as long as the alteration is not injurious to the public interest and will not impair the usefulness of the work (33 U.S. §408). USACE considers an alteration an action that builds upon,

alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural or ecological integrity, of a USACE project (33 U.S. §408). Under Section 408, USACE authorization is required before carrying out an action that would alter lands and property under USACE's jurisdiction in the Parkway. Therefore, an action that would alter Parkway lands and waters included in a USACE project, including federal levees lands and waters situated between federal levees, would require review to ascertain whether it necessitates submission of a Section 408 permission request. Such actions include the construction of new recreational infrastructure, the installation of power lines and pipelines, and improvements to existing flood management features that would alter a USACE project. Routine operations and maintenance (O&M) of USACE lands and property are exempt from Section 408 permissions (USACE 2016). For example, USACE-approved routine O&M undertaken by SAFCA or American River Flood Control District (ARFCD), as public sponsors, of federal levees in the Parkway do not require submission of a Section 408 permission request.

Federal Endangered Species Act (ESA)

Congress passed the Federal Endangered Species Act (ESA) in 1973. The ESA is intended to protect and help recover endangered and threatened animal and plant species. As of January 2020, ESA lists over 1,400 animal species and over 900 plant species. The Act classifies listed species as either "Endangered," meaning the species is nearing extinction in all or a significant portion of its range, or "Threatened," meaning the species is on the verge of becoming endangered. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (USFWS 2013).



Under the ESA, endangered and threatened animal species are protected from “take,” which is defined in the Act as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” toward a listed species without a permit. While plant species are not protected from “take,” they are protected from illegal collection and harm on federal lands, and from commercial trade and the effects of federal actions (USFWS 2013).

The Parkway contains plant species and provides habitat for animal species listed, proposed for listing, or candidates for listing under the ESA. As a result, natural resource management in the Parkway is subject to the statutes and regulations of the ESA.

National Wild and Scenic Rivers Act (WSRA)

The National WSRA was passed by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior (U.S. Bureau of Land Management (USBLM) et al. 2020).

The LAR was designated a Wild and Scenic River in 1981 by the Secretary of the Department of the Interior at the time under Section 2(a)(ii) of the National WSRA. The LAR is administered by the County of Sacramento as a political subdivision of the State of California (USBLM 2020). Per Section 1(b) of the Act, the LAR from the confluence with the Sacramento River to Nimbus Dam must be maintained in free-flowing condition, its water quality must be protected,



Boat ramp in the Discovery Park Area. Photo Credit: MIG

and its recreational and fishery values must be preserved. The NRMP shall not suggest nor require actions that would be inconsistent with these mandates. The American River Parkway Plan (described below) is the primary management document for the implementation of this Act.

National Historic Preservation Act, Section 106 (NHPA)

The National Historic Preservation Act (NHPA) of 1966 established a framework for the federal government to support state, tribal, and local preservation programs and activities, and created the Advisory Council on Historic Preservation (ACHP), a federal agency that addresses historic preservation issues. Section 106 of the Act requires federal agencies to consider the impacts of their

undertakings (i.e., a project, activity or program funded, permitted, licensed, or approved by a federal agency) on historic properties. Historic properties include prehistoric and historic districts, sites, buildings, structures, and objects. ACHP guides agencies in compliance with the Section 106 process through a set of regulations called 36 CFR Part 800—Protection of Historic Properties, including how federal agencies should consult with State Historic Preservation Officers (SHPOs), Tribes, Tribal Historic Preservation Officers (THPOs), and Native Hawaiian Organizations (NHOs) in determining project, activity, and program effects on historic properties. A proposed federal agency undertaking that may impact a historic property in the Parkway would trigger the Section 106 process (ACHP 2020).

3.2.2 Applicable State Regulations

Bushy Lake Preservation Act

Bushy Lake is a manmade lake located in the Cal Expo Area of the Parkway. The Bushy Lake Preservation Act, adopted in 1976, requires the California Exposition and State Fair (Cal Expo) Board of Directors to preserve the Cal Expo floodplain in a manner consistent with the definition of a state park for public day use and enjoyment, and the Bushy Lake area consistent with the features of a State Nature Preserve. The Act also requires the Cal Expo Board of Directors to preserve the Cal Expo floodplain in accordance with the Parkway Plan as an element of the Sacramento County General Plan. To accomplish this, the Act requires the Cal Expo Board of Directors to manage, or provide for the management of the Bushy Lake area in accordance with land use designations and policies of the Parkway Plan (CA Public Resources Code (PRC) §5830-5835), pursuant to an agreement with the Parkway manager. As a result, the Cal Expo Area, including the Bushy Lake area and Cal Expo floodplain, is managed by Regional Parks in accordance with an agreement between Cal Expo and Regional Parks.

California Water Code

The California Water Code contains statutory provisions addressing the regulation of water in the state of California, including, but not limited to: regulation of dams and reservoirs, wells, pumping plants, conduits, streams, flood control, water quality, irrigation, and drainage. Under Sections 8700 and 8701 of the California Water Code, actions that adversely affect the facilities of the State Plan of Flood Control, designated floodways, or streams regulated by the Central Valley Flood Protection Board (CVFPB) are unlawful (CWC § 8700, 8701). The Parkway, from approximately 0.5 mile upstream of Watt Avenue to

the Nimbus Dam, is a CVFPB Designated Floodway (DWR 2020). Substantial landscape modifications within 300 feet of the Designated Floodway portion of the Parkway are subject to the encroachment authority of the CVFPB and may require issuance of an encroachment permit. The CVFPB's encroachment authority is further recognized in Title 23, Division 1 of the California Code of Regulations (23 CCR T. 23, Div. 1).

In addition, under Sections 8590 - 8613 of the California Water Code, the CVFPB is responsible for monitoring the facilities of local reclamation districts and flood control agencies, such as Sacramento Area Flood Control Agency (SAFCA) and the American River Flood Control District (ARFCD). Any use or work in the Parkway floodplains or within 10 feet of the base of a levee must be approved by the CVFPB through issuance of a permit. CVFPB may also require the County to obtain endorsement from SAFCA for proposed work within SAFCA's jurisdiction (Sacramento County 2008b).

Oak Woodlands Conservation Program

The State Legislature passed the Oak Woodlands Conservation Act (Senate Bill No.1334) in 2004. The Act requires counties to consider whether a proposed project would significantly impact the environment through conversion of oak woodlands when determining whether an environmental impact report (EIR), mitigated negative declaration (MND), negative declaration (ND), or categorical exemption must be prepared under the California Environmental Quality Act (CEQA). If a project would have a significant impact on oak woodlands, the impact must be mitigated. Therefore, under CEQA, any project proposed to take place within the Parkway that would significantly impact the environment through alteration of its oak woodlands



Riparian scrub and Fremont cottonwood trees in the Howe Avenue Area.
Photo Credit: Regional Parks



would need to incorporate mitigation measure(s) to reduce the significance of potential impact(s) (Sacramento County 2008b).

Urban American River Parkway Preservation Act

The Urban American River Parkway Preservation Act, adopted in 1985 and amended most recently in 2011, is the act by which the California State Legislature adopted the Parkway Plan. The Act defines the Parkway Plan as the revised, updated management plan for the LAR adopted by resolutions of the City and County of Sacramento. The Act declares that the Parkway and its environs contribute to the quality of life within the City of Sacramento, the City of Rancho Cordova, and the County of Sacramento. The adoption of the Act allows local planning efforts related to the Parkway to be eligible for certain types of grants and funding (CA PRC §5840-5843).

State Wild and Scenic Rivers System Act (WSRA)

The California WSRA was passed in 1972 after the adoption of the National WSRA in 1968. Under California law, “...certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state” (CA PRC §5093.5-5093.7). Rivers are classified as:

- Wild: free-flowing waterways that are unpolluted and generally inaccessible,
- Scenic: free-flowing, undeveloped waterways accessible by roads, or
- Recreational: readily accessible waterways with some development.

This Act preserved about a quarter of California’s undeveloped waterways in their natural states. State-

designated wild and scenic rivers were adopted into the National WSRA in 1980 (Water Education Foundation 2020). The American River is considered a State-managed river that receives state and federal protection under both WSRA.

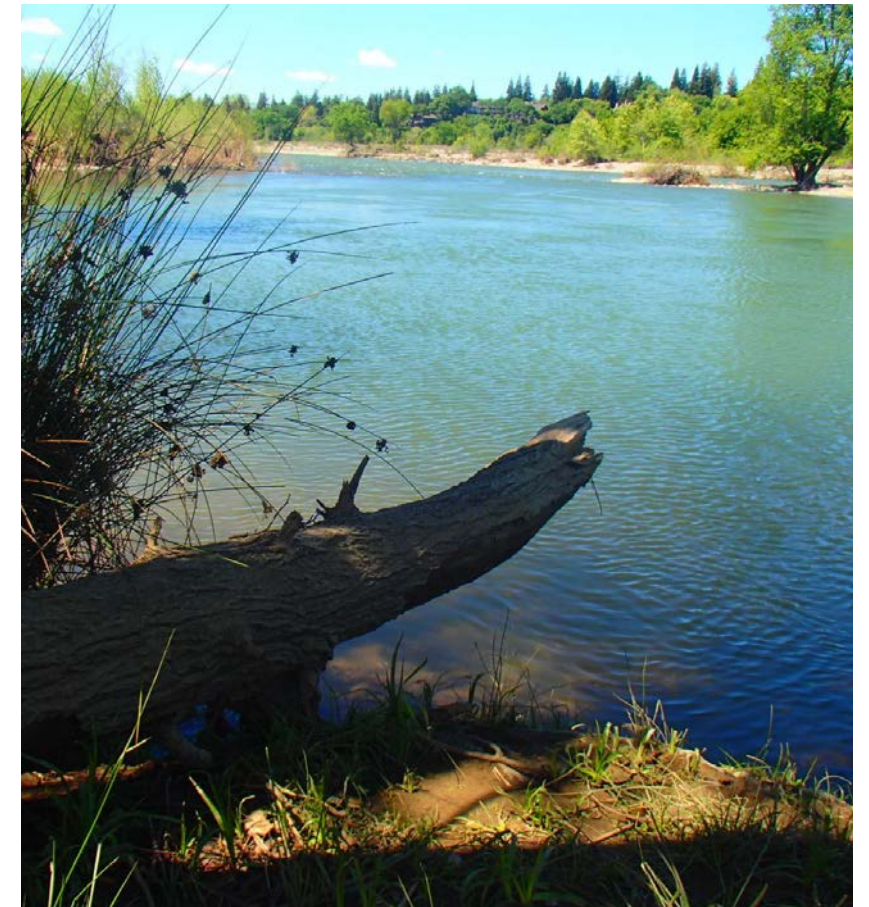
California Environmental Quality Act (CEQA)

In 1970, the State Legislature enacted CEQA, which requires local and state government agencies to inform decision makers and the public of the potential physical environmental impacts of a proposed project. Under CEQA, the lead local or state agency prepares an environmental document, including project details, potential environmental impacts, and, if applicable, measures to avoid or reduce potential impacts. The environmental document is then released for public review and comment.

Implementation of CEQA is primarily guided by the CEQA Guidelines (CA Code of Regulations, Title 14, Section 15000), which are updated yearly by the California Natural Resources Agency and the Governor’s Office of Planning and Research (OPR). Implementation is also guided by court decisions pertaining to interpretation of CEQA and local CEQA procedures (OPR 2020). The NRMP is subject to review under CEQA.

Assembly Bill No. 52 (AB52)

Through Assembly Bill No. 52 (AB 52), the California State Legislature added new requirements regarding tribal cultural resources in the environmental review process under CEQA. AB 52 established that “a [project] with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment,” requiring a lead agency to notify California Native American tribes traditionally and culturally affiliated with an area early on in the CEQA environmental review process that it received a proposal for a project that



Riverbank in the River Bend Park Area.

Photo Credit: Wildlife Conservation Board

may impact a tribal cultural resource. Following notification, a California Native American tribe may request consultation under AB 52. Consultation must occur prior to the public release of a negative declaration, mitigated negative declaration, or environment impact report for a project (OPR 2017). As part of environmental review of the NRMP under CEQA, the County may be required to notify California Native American tribes affiliated with the Parkway of the potential impacts of the NRMP on tribal cultural resources. In addition, individual projects called for by the NRMP that undergo environmental review in the future may be required to comply with AB 52.



Arden Pond in the Arden Bar Area. Photo Credit: MIG

California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) was enacted in 1970 to protect California's threatened and endangered plant and animal species. Plant and animal species become listed in a formal listing process by the California Fish and Game Commission, after which the California Department of Fish and Wildlife (CDFW) coordinates with agencies, organizations, and landowners to protect CESA-species and conserve their habitats. CESA declares listed species shall not be imported into the state, exported out of the state, "taken," (defined under CESA as hunting, pursuing, catching, capturing, or killing, or attempting to hunt, pursue, catch, capture, or kill a listed species), possessed, purchased, or sold without proper authorization (in the form of a permit) (CDFW 2020). The Parkway contains plant species and provides habitat for animal species listed, proposed for listing, or candidates

for listing under CESA. As a result, natural resource management in the Parkway is subject to the statutes and regulations of CESA.

California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code applies to activities that may: 1) substantially divert or obstruct the natural flow, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or 2) deposit or dispose of debris, waste, or other material where it may pass into any river, stream, or lake. Any entity proposed to conduct such an activity must notify CDFW before commencing the activity. CDFW then determines whether the entity proposing the activity must secure a Lake and Streambed Alteration (LSA) Agreement. Pursuant to Section 1602 of the Fish and Game Code, any entity proposing to conduct activities that may impact the LAR, streams, or lakes in the Parkway must notify CDFW (FGC § 1602).

3.2.3 Applicable Local Regulations

2008 American River Parkway Plan

The Parkway Plan is the guiding policy document for the Parkway that contains policy statements of a general and flexible nature to guide management decisions within the Parkway. The Plan acts as an informational document and an invitation for citizen participation in the planning process; the Plan also is the major guiding document for the implementation of the Wild and Scenic River designation. It also provides basic policy guidance for the future of the Parkway. The County of Sacramento has the principal responsibility for administration and management of the Parkway as guided by the Parkway Plan.

The purpose of the Parkway Plan is to provide a guide for land use decisions affecting the Parkway. The Parkway Plan specifically addresses the preservation, use, development, and administration of the Parkway. The Parkway Plan outlines specific policies for the overall Parkway, as well as Area-specific (e.g., SARA Park, Arden Bar, etc.) policies regarding authorized use of the Parkway and its resources. These include limits on development and protection of natural resources (Sacramento County 2008a).

River Corridor Management Plan (RCMP)

The River Corridor Management Plan (RCMP) is a plan created in 2002 by the Lower American River Task Force (LARTF) "...to institute a cooperative approach to managing and enhancing the Lower American River [LAR] corridor's aquatic and terrestrial ecosystems, flood-control systems, and recreation values within the framework of the 1985 American River Parkway Plan" (p. 1). The RCMP is not a legally binding document, and inclusion of a project in the RCMP action plan is not intended to imply that the project has been formally approved by agencies with jurisdiction



over that project. The RCMP provides a framework for integrated management of the river corridor. The NRMP would fit within the RCMP's management framework as a guidance document to which LARTF-participating organizations and agencies would refer for natural resource management direction.

Sacramento Area Flood Control Agency (SAFCA)

In 1989, the City of Sacramento, Sacramento County, Sutter County, ARFCD, and Reclamation District No. 1000 formed SAFCA through a Joint Exercise of Powers Agreement to better protect the Sacramento area from the impacts of flood events. SAFCA works with State and local flood control agencies and municipalities and with USACE to plan and implement regional flood control improvement projects, including levee improvement and bank protection projects such as the American River Common Features Project. Any work that may impact the flood control infrastructure over which SAFCA has operational and maintenance responsibility would require consultation with SAFCA (SAFCA 2020).

Sacramento County Floodplain Management Ordinance

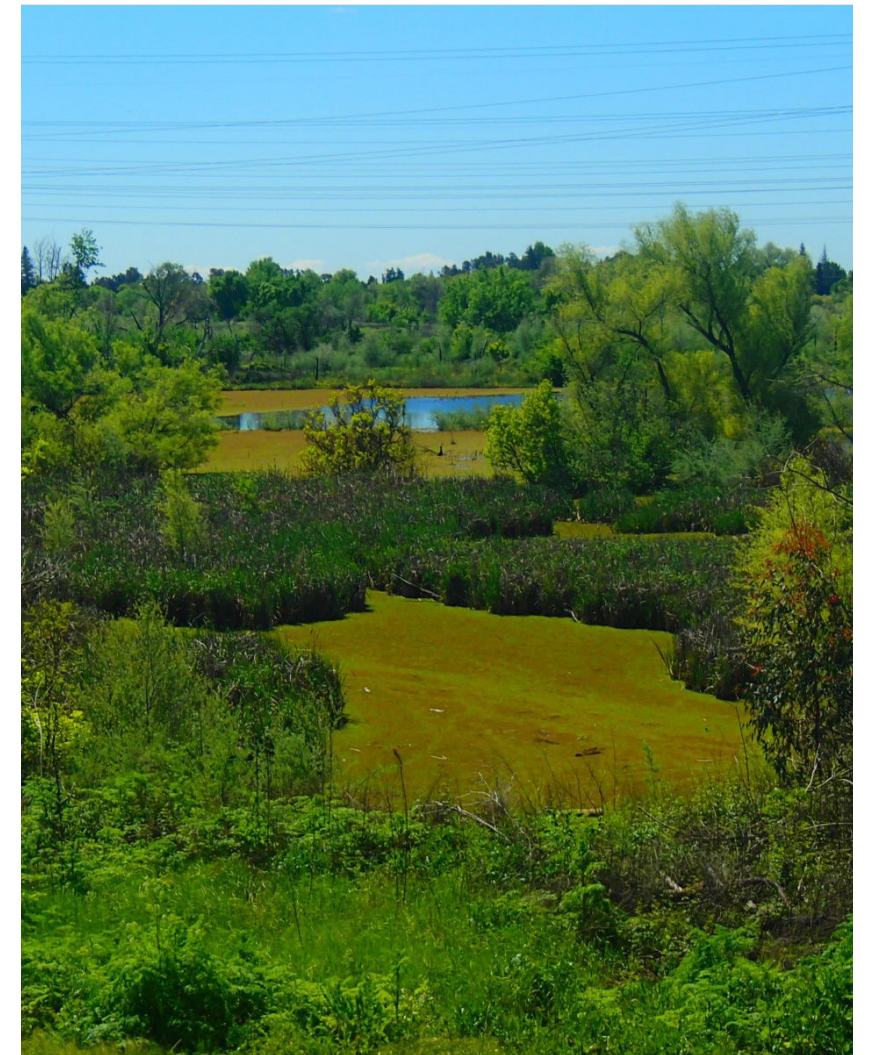
The Sacramento County Floodplain Management Ordinance requires all proposed development activities in the county be reviewed by the Sacramento County Department of Water Resources (County DWR) for compatibility with local and Federal Emergency Management Agency (FEMA) floodplain management standards. Specifically, the Ordinance describes the development activities allowed in floodplains and provides standards for development. For example, the Ordinance includes acceptable elevations for public roads and requirements for fill placement in floodplains. Approved projects cannot adversely impact

floodplain elevations and thereby, create a hazard in a floodplain. Development proposed in the Parkway's floodplains requires review by the County DWR as described above. The preparation of accompanying technical studies may be required.

County of Sacramento General Plan 2030

The Sacramento County Board of Supervisors adopted an updated General Plan in 2011 that has a planning horizon extending to 2030. Some of the County of Sacramento's General Plan goals and policies pertain to its rivers. Some of the key goals are summarized below:

- Manage water supply to protect valuable water-supported ecosystems.
- Manage the quality and quantity of urban runoff to protect the beneficial uses of surface water and groundwater.
- Establish and manage a preserve system with large core and landscape level preserves connected by wildlife corridors throughout Sacramento County to protect ecological functions and species populations.
- Protect and maintain habitat for special status species.
- Manage riparian corridors to protect natural, recreational, economic, agricultural, and cultural resources.
- Maintain levee protection, riparian vegetation, function, and topographic diversity by stream channel and bank stabilization projects.
- Stabilize riverbanks to protect levees, water conveyance and riparian functions. water quality, supply and conveyance.
- Conserve and protect the Sacramento, Cosumnes, Mokelumne, and American Rivers to preserve natural habitat and recreational opportunities.



Overlooking Bushy Lake from levee in the Cal Expo Area. Photo taken April 19, 2018. Photo Credit: Wildlife Conservation Board

- Make land uses within and development adjacent to stream corridors consistent with natural values.
- Provide and protect high-quality in-stream habitat, water quality, and water flows to support fisheries propagation, development, and migration.
- Preserve and protect heritage and landmark tree resources for their historic, economic, and environmental functions.

City of Sacramento General Plan 2035

The portion of the Parkway within the City of Sacramento is considered “Open Space” that is unlikely to undergo any major development through the General Plan’s 2035 timeline. Many of the City of Sacramento’s General Plan goals and policies pertain to its rivers. The NRMP will be consistent with all City of Sacramento General Plan 2035 Goals and Policies pertaining to the Parkway. The General Plan goals relate to the following:

- Waterway Conservation
- Open Space System
- American River Parkway Plan: *The City recognizes the Parkway Plan as an important State land use and policy document prepared through the Urban American River Parkway Preservation Act.*
- Open Space Preservation / Connected Open Space Program / Open Space Buffers
- Waterway Recreation and Access / River Parkways
- Conservation of Open Space Areas / Resource Preservation / Conservation of Open Space
- Natural Lands Management / Retention of Habitat Areas / Riparian Habitat Integrity
- Wetland Protection
- Annual Grasslands / Oak Woodlands
- Wildlife Corridors
- Habitat Assessments
- Urban Forest Management Plan
- Management and Enhancement of the City’s Tree Canopy / Trees of Significance
- Scenic Resources at River Crossings
- Floodplain Capacity

City of Rancho Cordova General Plan

The City of Rancho Cordova describes the portion of the American River and its associated Parkway as a “significant natural feature” in its General Plan, adopted in 2006. Many of the City of Rancho Cordova’s General Plan Goals and Policies are applicable to natural resources management in the Parkway. The NRMP will be consistent with all City of Rancho Cordova’s General Plan Goals and Policies applicable to the Parkway. Some of the General Plan Goals related to natural resources are listed below:

- Protect and preserve diverse wildlife and plant habitats, including habitat for special status species.
- Preserve the City’s rich and diverse natural wetlands.
- Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas, as feasible.
- Encourage the planting and reservation of high-quality trees throughout the City
- Protect the quantity and quality of the City’s water resources.
- Reduce the possibility of a flooding or drainage issue causing damage to urban land uses within the City.



TOP Red sesbania plants on river island in the Arden Bar Area.
Photo Credit: Regional Parks

BOTTOM Interpretive signage in the Discovery Park Area.
Photo Credit: MIG



3.3 LAND USE

Early human use of what is now the Parkway dates to the prehistoric period. The Nisenan Maidu, a subgroup of the Maidu Native Americans, occupied the lands adjacent to the American River and utilized the area's resources for shelter, water, food, and toolmaking (Kroeber 1925). Nisenan use of land included controlled burns to maximize plant diversity, limit dry fuel loads, and remove vegetation for basket weaving, shelters, food, and firewood, among other practices (Anderson and Moratto 1996). The Nisenan people essentially disappeared from the waterfront areas of the LAR at the onset of the Gold Rush in the mid-nineteenth century as a result of land appropriation and mass death attributed to disease and violent conflict (Wilson and Towne 1978).

The establishment of European settlements in the early nineteenth century led to the development of agricultural production areas along the LAR. In 1839, Juan Bautista Alvarado, Mexican governor of Alta California, granted the responsibility of colonizing the Sacramento Valley to John Augustus Sutter, who subsequently established Sutter's Fort and the settlement at the Rancho Nueva Helvetia. The establishment of Sutter's Fort and Rancho Nueva Helvetia was a catalyst for flourishing agricultural use of the LAR floodplain (Owens 1991).

The California Gold Rush era sparked growth of the waterfront area along the American River. The Gold Rush era was marked by increasingly destructive land use practices (Sacramento County 2008a). Mid- to late nineteenth century hydraulic mining upstream in the Sierra Nevada mountain range and its foothills involved the use of high-powered jets to blast through the terrain and obtain gold embedded in hillsides. Gold mining in and adjacent to the LAR began



Preservation site at Northgate and Del Paso in the Discovery Park Area. Photo Credit: Wildlife Conservation Board

in the late nineteenth century and drastically altered the river basin. Mining activities left behind extensive dredge tailings, deposited mining debris into the river, and degraded habitat and agricultural areas. What are now the Mississippi Bar, Sailor Bar, Sacramento Bar, and Arden Bar Areas were significantly impacted by gold mining operations. Aggregate mining and similar gravel extraction activities began in the early twentieth century, but no longer occur in the Parkway. Currently, resource agencies may, with authorization, use aggregate materials from past extraction activities for habitat restoration initiatives and State Parks may potentially permit the use of aggregate materials for dam operations and safety needs (Sacramento County 2008a).

Industrialization of the LAR floodplain began with the growth of the City of Sacramento in the early twentieth century and led to the development of railroads, bridges, and utility buildings. Dam and levee construction in the mid-twentieth century dramatically altered the fluvial geomorphology of the river system (Sacramento County 2008a). Recently, urbanization has continued the overall trend of human-induced alteration of the Parkway setting. As a result, the Parkway is currently surrounded by core metropolitan areas along its lower reaches and suburban sprawl along the upper reaches.

3.3.1 Existing Land Use Conditions

Land use in the Parkway is guided by six land use designations. Regional Parks and County Planning and Community Development refer to the land use designations in review of proposed projects, including new facilities and structures, events, improvements, maintenance operations, and ecological resource initiatives. The land uses of each Parkway Area reflect land use policy directives made in assessment of the environmental condition, size, location, and additional characteristics of each Area. While some areas of the Parkway are heavily disturbed, other areas have been altered less by human uses. An Area may contain multiple land use designations; however, a single tract of land can be assigned only one land use designation and there is no overlap. The land use designations guide Regional Parks in assessing whether a proposed or existing use, including recreational activities, is appropriate and consistent with the Parkway Plan. Certain activities, such as walking and fishing, take place throughout the Parkway, while others, such as barbequing and overnight camping, occur in limited locations. The six land use designations are as follows:



OPEN SPACE PRESERVE

Lands designated as Open Space Preserve are meant to remain undeveloped and maintained in a way that minimizes human activity and impact. These areas are categorized as such due to topography, inaccessibility, and other factors. Limited development and facilities, such as fences, sprinkler systems, and gates, are allowed solely for the purposes of restoring habitat and ensuring public safety (Sacramento County 2008a). Open Space Preserve lands do not support recreational use because of topography, accessibility, and/or private ownership conditions (Sacramento County 2008a). Recreational activities under this land use designation are prohibited.



NATURE STUDY AREA

Lands designated as Nature Study Areas are the most environmentally sensitive areas of the Parkway. Special environmental characteristics make these areas suitable only for passive recreation and facilities that would not degrade the natural features of the land. Nature Study Areas allow for the establishment and maintenance of minor structures and improvements, such as drinking fountains, portable restrooms, interpretive signage, and trail repairs (Sacramento County 2008a). Permitted recreational activities include nature appreciation, pedestrian use (including walking, running, and hiking), picnicking in the Cal Expo Area, boating in the Discovery Park Pond, and interpretive programming in certain areas (Sacramento County 2008a).



PROTECTED AREA

Lands designated as Protected Area are suitable for general public access. These are typically large areas that can reasonably withstand moderate levels of public use and recreation without degrading substantially. However, heavy use of these lands is prohibited, as they are mostly intended to be protected or restored. These areas allow for the development of facilities and improvements (including trails, picnic tables, and restrooms) necessary for facilitating the public enjoyment of nature. (Sacramento County 2008a). Recreational activities allowed in Protected Areas include nature appreciation, picnicking along designated trails, day camping, pedestrian use (walking, running, and hiking), equestrian activities, bicycling, and aquatic recreation excluding motorized boating (Sacramento County 2008a).



LIMITED RECREATION

Limited Recreation areas allow for active recreational activities limited in scope by size of land, lack of access, and other conditions. Non-recreational human

uses such as agriculture and certain commercial activities are also allowed. Signage, picnic areas, and trails (and their supplementary features) are consistent with this land use designation (Sacramento County 2008a). Recreational activities allowed in these lands include nature appreciation, pedestrian use (walking, running, and hiking), equestrian activities, picnicking, day camping, and aquatic recreation (Sacramento County 2008a).



DEVELOPED RECREATION

The Developed Recreation land use designation is assigned to lands that can support heavy use. Developed Recreation areas allow for all the facilities and activities permitted in the more restrictive land use designations, and support additional features such as interpretive centers, play apparatuses, and game fields (Sacramento County 2008a). All activities allowed within the previous land use designations are allowed in Developed Recreation areas. Additional permitted activities include team sports, archery in the Discovery Park Area, golfing in the Campus Commons and Ancil Hoffman County Park Areas, and group overnight camping for educational and youth group purposes (Sacramento County 2008a).



RECREATION RESERVE

Lands designated as Recreation Reserve areas are intended for potential future recreational development, habitat restoration, or interpretive programming. These lands are meant to be converted to other land use designations in the future. Recreation Reserve areas can be used for agricultural activities, nurseries, caretaker quarters, public utility facilities, and emergency access facilities (Sacramento County 2008a). While nature appreciation, pedestrian use (walking, running, and hiking), and aquatic recreation are allowed, currently the only Recreation Reserve area in



the Parkway is the Regional San parcel in Arden Bar; the parcel is leased to the Sacramento County Sheriff's Office (Sacramento County 2008a).

Land uses adjacent to the Parkway include residential, commercial, infrastructure, park, and institutional uses. Several parks, such as Sutter's Landing Park in Sacramento and Hagan Community Park in Rancho Cordova, share boundaries with the Parkway. Adjacent open space uses increase the buffer between the Parkway and developed areas and create or bolster wildlife corridors that traverse the Parkway and provide access for native species. The California State University-Sacramento (CSUS), Rio Americano High School, and Sacramento Waldorf School campuses are institutional uses that border the Parkway. The CSUS campus is adjacent to the Campus Commons Area along the southern bank of the river. The Rio Americano High School campus borders the SARA Park Area to the north. The Waldorf School borders Sacramento Bar immediately to the north.



RESIDENTIAL

Residential neighborhoods abut a substantial portion of the Parkway. Most residences are separated from the interior of the Parkway by roadways, bicycle trails, and other linear transportation features. Occupants of residences lining the Parkway are permitted to clear brush within 50 feet of private property lines for fire prevention purposes with a Fuel Break Encroachment Permit (Regional Parks 2019). Residential uses adjacent to and encroaching upon the Parkway are managed predominantly through enforcement of County of Sacramento and City of Rancho Cordova zoning regulations. Regional Parks also conducts routine Parkway monitoring activities (Sacramento County 2008a).



COMMERCIAL/RETAIL USES

Commercial uses in the Parkway are typically operated by concessionaires (private parties that conduct business on public lands and waters with approval from the proper authority). Concessions in the Parkway can be categorized as either service-based or sales-based, though there is some overlap. They include raft and kayak rentals, non-recreational activities associated with the Ancil Hoffman Golf Course, Campus Commons Golf Course, and Effie Yeaw Nature Center, garbage pickup services, and special events (Sacramento County 2008a). Indeed, most commercial uses in the Parkway supplement recreational uses.



AGRICULTURAL

In the past, the Parkway contained agricultural fields and settlements. Currently, agricultural production occurs in the Parkway only at Soil Born Farms at the American River Ranch in River Bend Park. Operation of the farm, per the American River Ranch Master Plan, is consistent with the Parkway Plan.



UTILITIES AND INFRASTRUCTURE

The Parkway is a hub of utility infrastructure, including electrical power transmission towers and poles, power lines, manmade drainage mains, stormwater runoff outfall structures, wastewater and water supply pipelines, and additional public facilities.

Electrical power infrastructure in and near the Parkway is owned and maintained by the Pacific Gas and Electric Company (PG&E), the Sacramento Municipal Utility District (SMUD), or the Western Area Power Authority (WAPA). Over 150 electrical power transmission towers and poles are located throughout the Parkway, predominantly within the Discovery Park, Woodlake, and Cal Expo Areas.

Stormwater infrastructure, including tributaries, culverts, mains, and outfalls, transport surface runoff from surrounding urban and suburban areas into the LAR and adjacent Parkway lands. The Parkway contains portions of over 40 drainage mains, segments of approximately 15 natural and manmade drainage courses, and over 40 outfall structures. Sacramento County, along with several cities in the County, are permittees under a NPDES MS4 (municipal separate storm sewer system) permit administered through Central Valley RWQCB. NPDES MS4 permits require permittees to adhere to runoff discharge requirements within their jurisdictions. As a result, preventing the pollution of runoff entering the Parkway can and should be managed by these municipal jurisdictions (Sacramento County DWR 2019).

Over 20 water purveyors supply potable and recycled water to communities in the greater Sacramento area (Sacramento County DWR 2019). Parkway facilities use potable water for drinking fountains and restroom facilities. Recycled water is used for irrigating landscaping and restoration project plantings. Infrastructure in the Parkway includes underground pipelines and water intake structures, such as the E.A. Fairbairn Intake Structure in the Campus Commons Area, which pumps surface water from the LAR and treats it at the E.A. Fairbairn Water Treatment Plant adjacent to the CSUS campus. In addition, the Carmichael Water District owns and operates several water collection structures in the Rossmoor Bar Area (Sacramento County 2008a). Water supply and conveyance easements limit the activities that can take place within the bounds of the easement to protect the underground infrastructure and to ensure utility companies have unimpeded access. Water companies may be required to mitigate for land and vegetation that were initially disturbed during infrastructure construction. As a result, areas adjacent to water supply utility easements may

be set aside for use by the responsible company or district, thereby limiting Regional Parks' potential use of those areas.

Wastewater infrastructure in the Parkway includes conveyance infrastructure, such as sewer mains and interceptors, and facilities such as pump stations. Regional San operates and maintains wastewater facilities in the Campus Commons Area (Arden & Force Mains), SARA Park Area (Northeast Interceptor and associated facilities), Arden Bar Area (Northeast Interceptor and associated facilities), and the River Bend Park Area (Cordova Sewage Pumping Station & Force Main) (Regional San 2013). In addition, the Sacramento Area Sewer District (SASD) maintains and operates sewer pipelines and pump stations throughout the Parkway. The River Bend Park, Ancil Hoffman County Park, Rossmoor Bar, San Juan Bluffs, Sacramento Bar, Lower Sunrise, Sunrise Bluffs, Upper Sunrise, and Sailor Bar Areas all contain SASD wastewater pipelines. SASD pump stations are located in the River Bend Park, Ancil Hoffman County Park, San Juan Bluffs, Sunrise Bluffs, and Sailor Bar Areas. Miles of sewer pipelines convey wastewater from residences and businesses around Sacramento to the Sacramento Regional Wastewater Treatment Plant in Elk Grove to be treated and then discharged into the Sacramento River (Sacramento County 2019). Rights-of-way (ROWs) are maintained to ensure wastewater utility companies have safe and practical access to sewer infrastructure, and to prevent tree and plant roots from damaging pipelines.

Roads in the Parkway mainly facilitate access, whether that be for the public, maintenance, or emergency purposes. They can be categorized as either public access roads or maintenance/service roads accessed by Regional Parks and emergency vehicles only (Sacramento County 2008a). Roads serve the additional purpose of providing fire breaks by fragmenting vegetated areas that may act as

fuel breaks for wildland fires. There are 18 bridges, ranging from pedestrian/bicycle to train to freeway bridges, in the Parkway (Sacramento County 2008a). The Parkway Plan advises against development of new bridges in the Parkway and recommends expanding existing bridge capacity where possible, and only if necessary (Sacramento County 2008a).

The NRMP is intended to guide Regional Parks in managing, maintaining, and enhancing Parkway resources in concert with the provision of recreation opportunities. Because all projects must be reviewed for land use consistency, applicable land use policy plays a role in determining what Regional Parks and other agencies can and cannot do when implementing natural resource management projects. The NRMP does not dictate land use decisions, but rather provides important resource information to support sound land use decisions and natural resource management.

All uses proposed within the Parkway require review for consistency with the Parkway Plan and Area-specific policies. Actions proposed to occur on, and adjacent to, Parkway lands under the jurisdiction of the City of Sacramento or the City of Rancho Cordova are initially reviewed by City planning staff for consistency with either the Sacramento City Zoning Code or the City of Rancho Cordova Zoning Code (Sacramento County 2008a). Both City's Zoning Codes contain special requirements for proposed uses in and adjacent to the Parkway. For example, the City of Sacramento designates an American River Parkway-Floodplain (ARP-F) overlay zone to regulate uses within its municipal boundaries in the Parkway. The City of Rancho Cordova has incorporated the County's PC (Parkway Corridor) Combining Zone requirements into its Zoning Code (Sacramento County 2008a). All County and City ordinance requirements applicable to uses within Parkway boundaries were developed to ensure approved activities are consistent

with the Parkway Plan. Depending on the scope and scale of a proposed use, approval by the County Board of Supervisors and additional governing bodies, such as the County Recreation and Parks Commission, may be required (Sacramento County 2008a).

Depending on the scope of a proposed use, environmental review may be required. Routine maintenance activities and administrative activities generally do not require environmental review. However, potential future actions determined to be "projects" under CEQA or the National Environmental Policy Act (NEPA) would be subject to environmental review. Sacramento County, the City of Sacramento, or the City of Rancho Cordova planning and environmental review staff would determine whether an action proposed to occur in or adjacent to the Parkway requires environmental review under CEQA or NEPA.

State or federal permits may be required for activities that would affect a Parkway area or feature, such as federally maintained levees, under the primary management responsibility of a state or federal agency. The County involves appropriate regulatory agencies in planning processes to obtain any necessary local, state, and federal permits and concurrences. The County accomplishes its legal requirements (for permits, consultations, and authorizations) under the ESA, CESA, CWA, and CEQA, and other laws and regulations, while considering compatibility between recreational uses of the Parkway and natural and cultural resource conservation.

Table 3-1 includes the amount of land under each land use designation in each Area of the Parkway.



TABLE 3-1. LAND USE DESIGNATIONS BY AREA

AREAS	LAND USE DESIGNATIONS (IN APPROXIMATE ACRES)						UNDESIGNATED	TOTAL ACRES*
	Open Space Preserve	Nature Study Area	Protected Area	Limited Recreation	Developed Recreation	Recreation Reserve		
Discovery Park	-	54	333	53	130	-	168	738
Woodlake	-	-	317	28	25	-	95	465
Cal Expo	-	66	294	30	-	-	29	419
Paradise Beach	-	-	109	4	3	-	-	116
Campus Commons	-	-	103	-	49	-	45	197
Howe Avenue	-	-	56	34	16	-	42	148
Watt Avenue	-	-	48	27	23	-	46	144
SARA Park	-	-	158	82	24	-	104	368
Arden Bar	-	-	128	43	62	36	34	303
River Bend Park	-	117	186	72	74	-	-	449
Sarah Court Access	-	-	2	-	-	-	2	4
Ancil Hoffman County Park	-	103	35	-	247	-	2	387
Rossmoor Bar	<1	<1	398	51	103	1	1	554
San Juan Bluffs	22	-	0.1	-	-	-	<1	23
Sacramento Bar	20	30	212	-	27	-	13	302
Lower Sunrise	-	-	103	1	66	-	1	171
Sunrise Bluffs	22	-	4	-	<1	-	<1	27
Upper Sunrise	<1	-	124	94	88	-	-	306
Sailor Bar	15	37	189	21	110	-	2	374

*Undesignated areas include open waters that are not located in the LAR channel.

*Total acres may not equal the sum of the columns due to rounding.

3.4 PARKWAY AREAS

The Parkway Plan divides the Parkway into 19 Areas and the NRMP uses these same Areas for consistency. The locations and arrangement of the 19 Parkway Areas are shown in Figure 3-1 American River Parkway on page 3-11. Each Area will have a Plan Map (included in Chapter 8.0 Management, Monitoring, and Implementation) that highlights and delineates regulated resources, restoration areas, invasive species, inundation extents, and proposed management actions. One additional Area, Lake Natoma, is included in this chapter for reference and context only as it is managed by State Parks. The NRMP does not dictate land use decisions, as outlined in the Parkway Plan. Rather, the Plan provides important resource information to support and inform decisions and natural resource management in each Area.

The Parkway Plan provides a comprehensive description of the Parkway. It contains a description of existing (as of 2008) and proposed future activities, location of natural and manmade features, facilities, and opportunities and constraints. Unless facilities are specifically designated on an Area map of the Parkway Plan, they may not be constructed or installed. Area-specific policies are used to indicate what facilities, activities, and uses may be permitted or encouraged for a given Area.

The natural resource management maps refine the Parkway Area Plan maps with respect to preserving, protecting, and managing sensitive natural and cultural resources. The Parkway Plan Area Plan maps, along with the NRMP maps, will be reviewed when a physical change is proposed in the Parkway to determine the appropriateness of the change. An amendment to Parkway Plan Area-specific policies



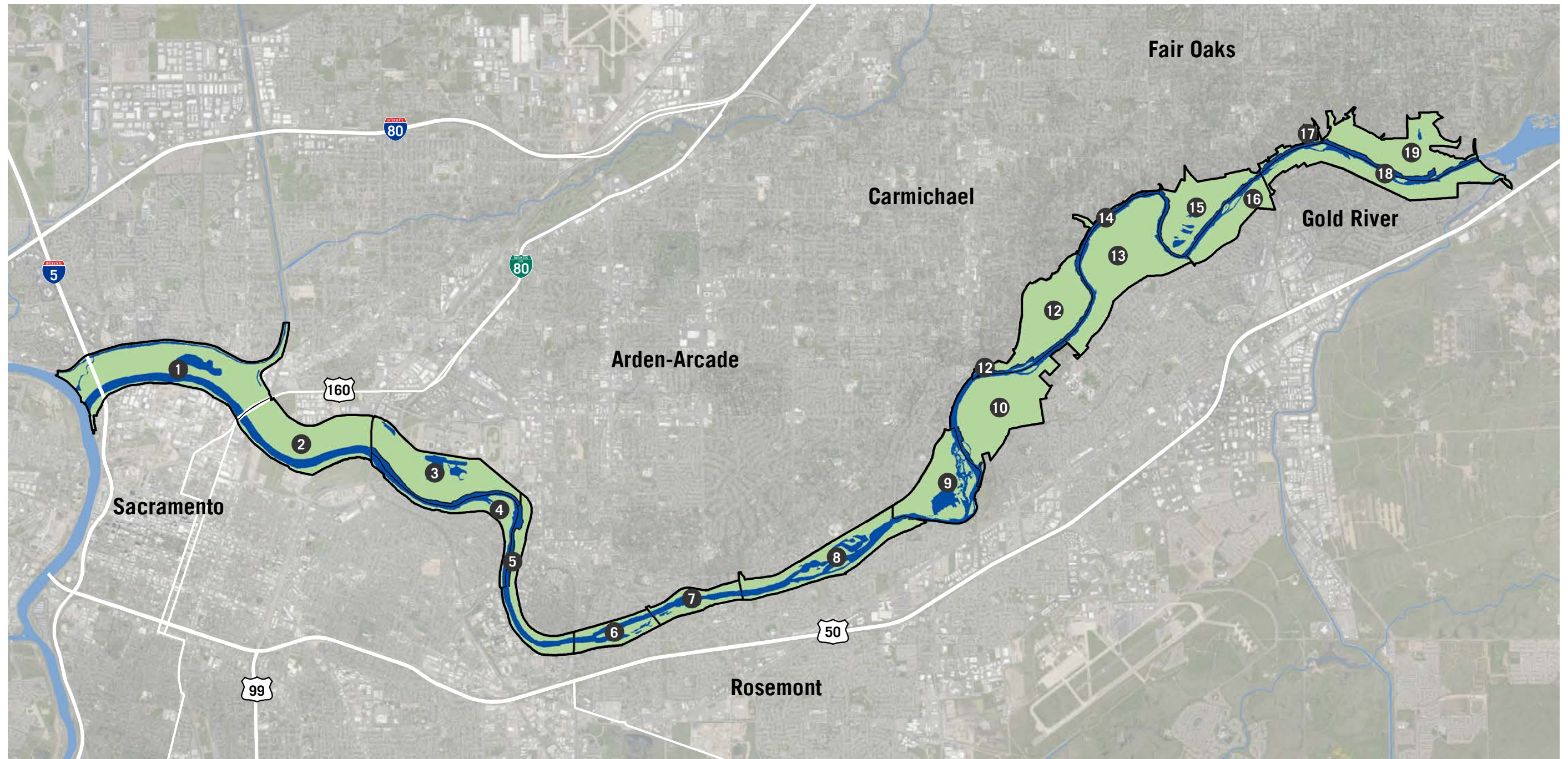
The Jibboom Street Bridge in the Discovery Park Area. Photo Credit: MIG

requires the approval of the County Board of Supervisors. The vegetation communities listed in each of the following Area descriptions are discussed in depth and shown in Figure 4-1 Vegetation Communities in Chapter 4.0 Biological Resources of the NRMP.

3.4.1 Discovery Park Area

The Discovery Park Area, one of the most developed and most frequented areas of the Parkway, is suitable for expanded connectivity and recreational amenities, augmented interpretive facilities, and focused management of pockets of high-quality natural habitat (Sacramento County 2008a). The Area is located between the confluence of the American River and Sacramento River

to the west and Highway 160 to the east. In addition to Discovery Park proper, this Area is comprised of three subareas: Discovery Park East, Tiscornia Park, and Jibboom Street East. Notable locations in this Area are Camp Pollock, which is managed by the Sacramento Valley Conservancy (SVC), and the Urrutia Site (also known as the former Gardenland Sand and Gravel Mine), a former mining site with graded soils, a large water-bearing pit, stockpiles of soil and debris, and ruderal weed species. The City of Sacramento and SAFCA are partnering together to carry out the Urrutia Site Restoration and Enhancement Project, a project to restore the Urrutia site by enhancing its habitat values. At this time, physical alteration of the site for habitat restoration has not yet begun. Upon completion of



ESRI 2021

AREAS	
1	Discovery Park
2	Woodlake
3	Cal Expo
4	Paradise Beach
5	Campus Commons
6	Howe Avenue
7	Watt Avenue
8	SARA Park
9	Arden Bar
10	River Bend Park
11	Sarah Court Access
12	Ancil Hoffman County Park
13	Rossmorr Bar
14	San Juan Bluffs
15	Sacramento Bar
16	Lower Sunrise
17	Sunrise Bluffs
18	Upper Sunrise
19	Sailor Bar

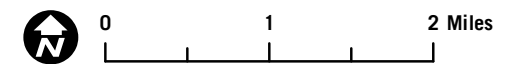


Figure 3-1
American River Parkway

the project, the Urrutia site would contain restored native riparian habitat, support recreational and interpretive activities, and advance SAFCA's flood management objectives (City of Sacramento 2008).

Most of Discovery Park East is occupied by the Urrutia site (Sacramento County 2008a). Tiscornia Park is largely a sandy beach bounded to the south by a levee (Sacramento County 2008a). Jibboom Street East is a long, narrow band of land with sandy beaches, slow moving river flows, and a publicly accessible bank highly impacted by homeless encampments (Sacramento County 2008a). Development of the Discovery Park Area is constrained by yearly flooding (Sacramento County 2008a).

Vegetation communities in the Area include developed, open water, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.

Sections of Discovery Park have been disturbed by facilities development, fires, vegetation management activities, and the establishment of transmission towers and power lines. The Area contains several planned restoration areas for the federally-threatened Valley Elderberry Longhorn Beetle (VELB) (Sacramento County 2008a). An additional natural feature in the Area is Steelhead Creek, which enters Discovery Park at El Camino Avenue and runs westward through the Area until it discharges into the Sacramento River (Sacramento County DWR 2019).

The Discovery Park Area supports boating, fishing, pedestrian, biking, equestrian, picnicking, camping, and nature-appreciation activities. It also supports archery, field sports, and both small and large special events. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as car-top boat launches and

boat ramps, an archery range, picnic areas with picnic tables, restrooms, and public parking (Sacramento County 2008a).

Electrical power transmission towers dot the landscape to the east of the Urrutia Site and parallel to the Area's northern boundary. A portion of the Sacramento County Regional Sanitation District's (Regional San) Mode 2 Pipeline conveys wastewater from City of Sacramento-owned and -operated pumping stations north of the Parkway to the City of Sacramento Sewer System south of the Parkway through Discovery Park East and the Woodlake Area (Regional San 2013). In addition, Regional San maintains sanitary sewer overflow infrastructure, including pipelines and manholes, in the western half of Discovery Park.

Additional infrastructure in the Discovery Park Area includes three bridges, all of which cross the river. These bridges include Jibboom Street Bridge (a two-lane vehicle, pedestrian, and bicycle bridge), the I-5 American River Bridge, and the North Highway 160 Bridge (Sacramento County 2008a).

3.4.2 Woodlake Area

The Woodlake Area is comparatively less developed than other Parkway areas and supports minimal recreational activity (Sacramento County 2008a). The Area is located between Highway 160 to the northwest and Southern Pacific Railroad (S.P.R.R.) to the east. Woodlake contains an extensive floodplain situated significantly higher than the river throughout most of the year. Steep banks are located along both sides of the river, narrow beaches are interspersed along the north bank, and an urban drainage channel runs parallel to the levee on the north bank (Sacramento County 2008a). As with Discovery Park, the Woodlake Area is highly impacted by homeless



TOP Tiscornia Beach at the confluence of the American River and Sacramento River in the Discovery Park Area. Photo Credit: MIG

BOTTOM Archery field at Discovery Park. Photo Credit: MIG



encampments. In addition, swaths of vegetation in the Area have been cleared around electrical power infrastructure to reduce wildland fire risk.

Vegetation communities in the Area include developed, elderberry scrub, open water, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.

The Woodlake Area supports pedestrian, biking, equestrian, fishing, swimming, and nature appreciation activities. It contains various recreational facilities, including multiple and single use trails for hiking, biking, and equestrian activities, as well as restrooms and public parking (Sacramento County 2008a). Part of Sutter's Landing Park, which is located along the south bank of the river, is included within the Area and supports pedestrian and biking activities on the Two Rivers Trail (Sacramento County 2008a). The Woodlake and Cal Expo Areas currently host an Off-Paved Trail Cycling Pilot Program, a Regional Parks initiative allowing bikers to use six miles of unpaved maintenance and fire roads. The Program, which began in 2017, is meant to assess the viability of off-paved trail cycling in the Parkway (Regional Parks 2019).

As with the Discovery Park and Cal Expo Areas, easements have been established for electrical power infrastructure, including transmission towers and power lines (Sacramento County 2008a). The Area contains four bridges, including the South Highway 160 Bridge, the Sacramento Northern Bikeway Bridge, the Western Pacific Railroad Bridge, and the S.P.R.R. Bridge, which forms the Area's upstream boundary (Sacramento County 2008a; Google Maps 2019).

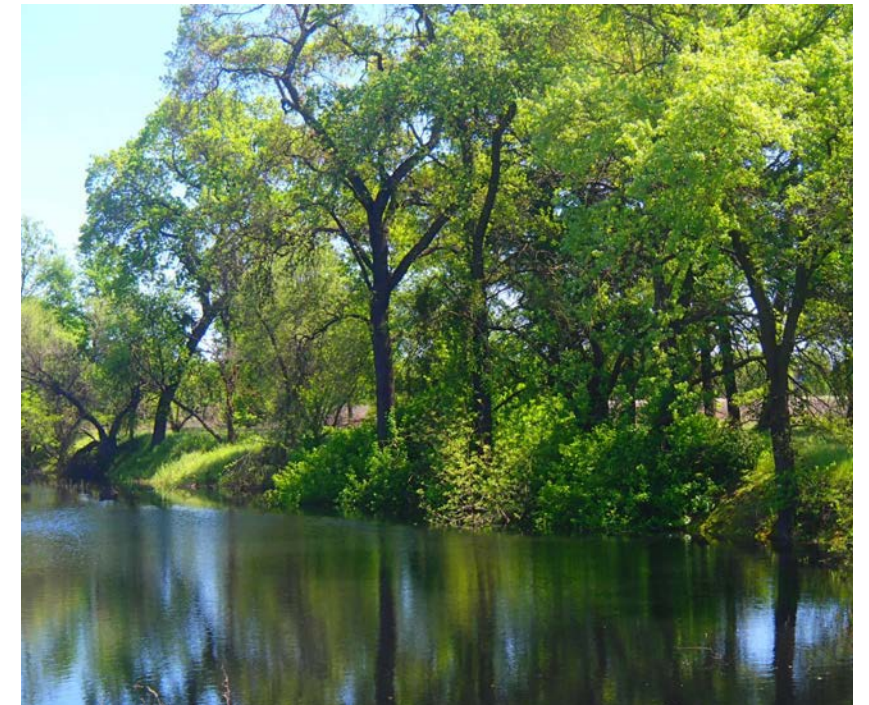
3.4.3 Cal Expo Area

The Cal Expo Area is a floodplain adjacent to the heavily-used Cal Expo fairgrounds located to the north of the Parkway. The Area must be maintained consistent with requirements for a State Park relative to preserving natural and cultural resources. Bushy Lake, a manmade lake supplied with pumped groundwater, is the dominant natural feature in this Area. The Cal Expo Area receives large quantities of urban stormwater runoff because of its location next to a prominent urban center and the Chicken Slough and Strong Ranch Slough drainage outfalls (Sacramento County 2008a).

Vegetation communities in the Area include developed, elderberry scrub, fresh emergent wetland, gravel bar chaparral, open water, riparian woodland/forest, riparian scrub, turf/turf with trees, and valley foothill grassland.

As with the Discovery Park and Woodlake Areas, electrical power infrastructure vegetation management activities have cleared extensive swaths of vegetation. Historical agricultural activities also contributed to the removal of riparian vegetation in the Area. The Cal Expo floodplain is a key area for habitat and resource restoration because it must be maintained as a State Natural Preserve (Sacramento County 2008a).

The Cal Expo Area supports pedestrian, biking, equestrian, fishing, swimming, picnicking, and nature appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as public parking (Sacramento County 2008a). As discussed above, the Woodlake and Cal Expo Areas currently host an Off-Paved Trail Cycling Pilot Program scheduled to end in 2020.



TOP Native vegetation on the banks of levee borrow pit in the Woodlake Area. Photo Credit: Wildlife Conservation Board

BOTTOM Off-Paved Trail Cycling Pilot Program signage in the Cal Expo Area. Photo Credit: MIG

Electrical power transmission towers and power lines traverse the Area. The Capital City Freeway runs north-south through the Area and crosses the river at the Capital City Freeway Bridge, approximately one quarter mile east of the Area boundary (Sacramento County 2008a).

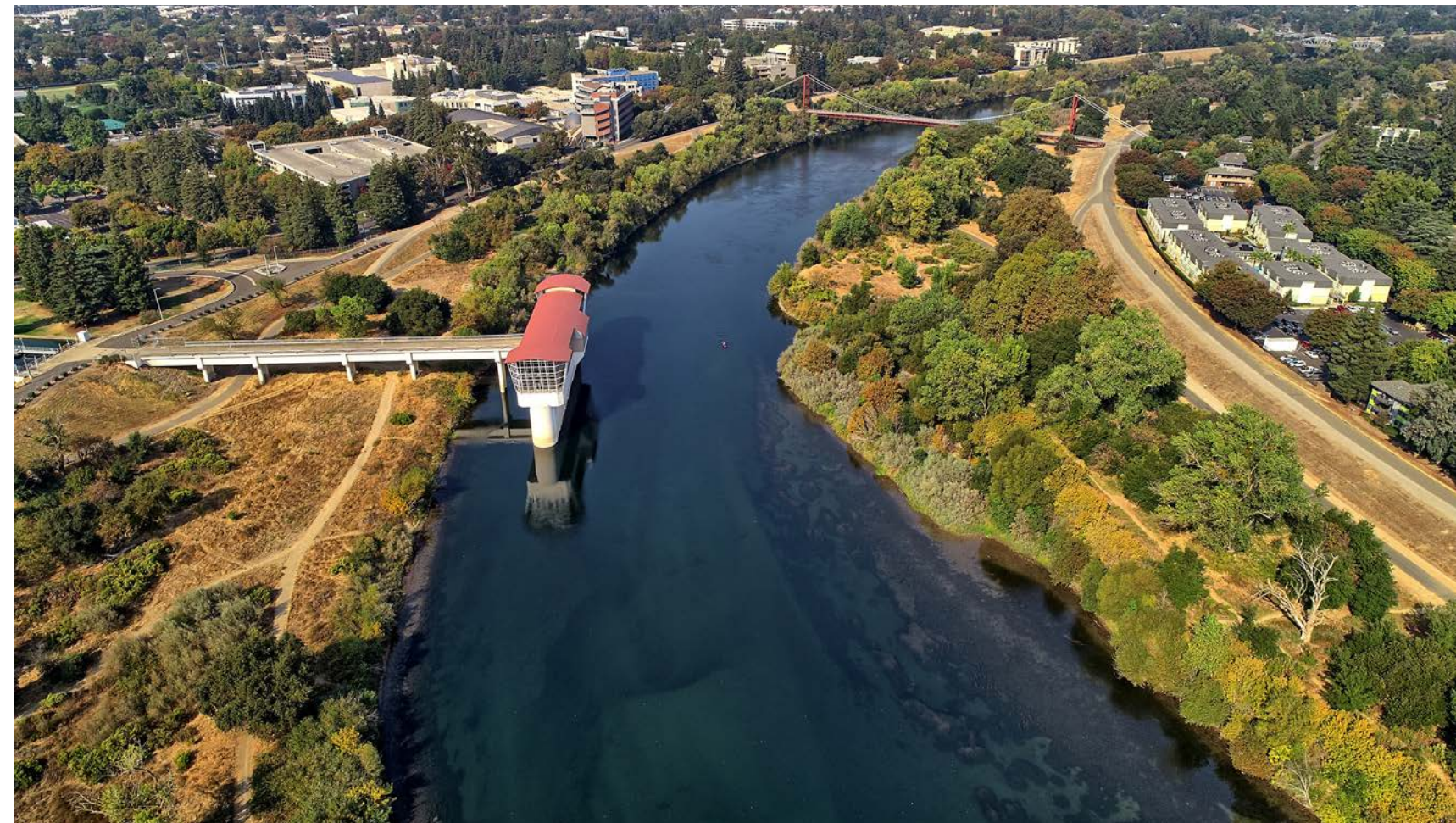
3.4.4 Paradise Beach Area

The Paradise Beach Area is characterized by its long, contiguous habitat protection areas and popularity for beach activities. The Area is located on the south bank of the river, south of the Cal Expo floodplain, between the S.P.R.R. Bridge to the west and “H” Street Bridge to the southeast. Though most of the Area is maintained as natural habitat, the large, sandy beach located at a bend in the river has made Paradise Beach an informal recreation area. Annual flooding and unstable sandy soil limit development opportunities in this Area (Sacramento County 2008a).

Vegetation communities in the Area include developed, elderberry scrub, gravel bar chaparral, open water, riparian woodland/forest, riparian scrub, and unvegetated.

Paradise Beach does not contain permanent structures aside from the Capital City Freeway Bridge. A parking lot located outside the Parkway marks the single formal access point into the Area. Additional facilities include portable restrooms and trash cans. Despite its limited facilities and access points, the Area is visited frequently and allows for pedestrian, nature appreciation, fishing, swimming, and other beach-related activities (Sacramento County 2008a).

The Capital City Freeway Bridge crosses over a narrow strip of land about 900 feet in from the Area’s downstream boundary (Sacramento County 2008a; Google Maps 2019). A small portion of a Sacramento Area Sewer District pipeline crosses through Paradise Beach between the



Aerial view of the E.A. Fairbairn Water Intake Station and Guy West Bridge in the Campus Commons Area. Photo Credit: Regional Parks

S.P.R.R. Bridge and the Capital City Freeway Bridge before continuing south.

3.4.5 Campus Commons Area

The Campus Commons Area is notable for its popular, yet limited recreational areas interspersed among areas of abundant, dense riparian vegetation. The Area includes the north bank of the river from the extension of Ethan Way to Howe Avenue and the south bank of the river from the “H” Street bridge to Howe Avenue. The main features of this Area are the Campus Commons Golf Course, the Guy

West Bridge connecting the north and south banks, the CSUS Alumni Grove (a meeting space with picnic tables, barbecues, and turf areas that is maintained by the CSUS Alumni Association), and a City of Sacramento water intake and pumping station (Sacramento County 2008a).

Vegetation communities in the Area include developed, elderberry scrub, open water, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.



The Campus Commons Area supports recreational activities such as golfing, pedestrian use, biking, equestrianism, picnicking, fishing, and nature appreciation. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as picnic tables and barbeque facilities (Sacramento County 2008a). Annual flooding impedes recreational activity in the low-lying areas during the winter.

Regional San maintains the Arden Force Main, a sewage force main interceptor that traverses the Area and exits the Parkway near the City of Sacramento water intake and pumping station adjacent to Alumni Grove (Regional San 2013). During installation of the force main, native vegetation in the area was disrupted. Subsequently, a Native Plant Restoration Area was established in between the Guy West Bridge and “H” Street Bridge to mitigate for impacts to the previously natural habitat area (Sacramento County 2008a). The existing sewer easement in Campus Commons limits activities that Regional Parks and other agencies can undertake in proximity to sewer infrastructure.

The “H” Street Bridge, which provides pedestrian, bicycle, and vehicle passage, connects Fair Oaks Boulevard to the east with J Street and H Street to the west. The Guy West Bridge, a pedestrian and bicycle bridge, crosses over the Area and the river northwest of Alumni Grove. The Howe Avenue Bridge acts as the upstream Area boundary and provides pedestrian, bicycle, and vehicle passage over the river (Sacramento County 2008a).

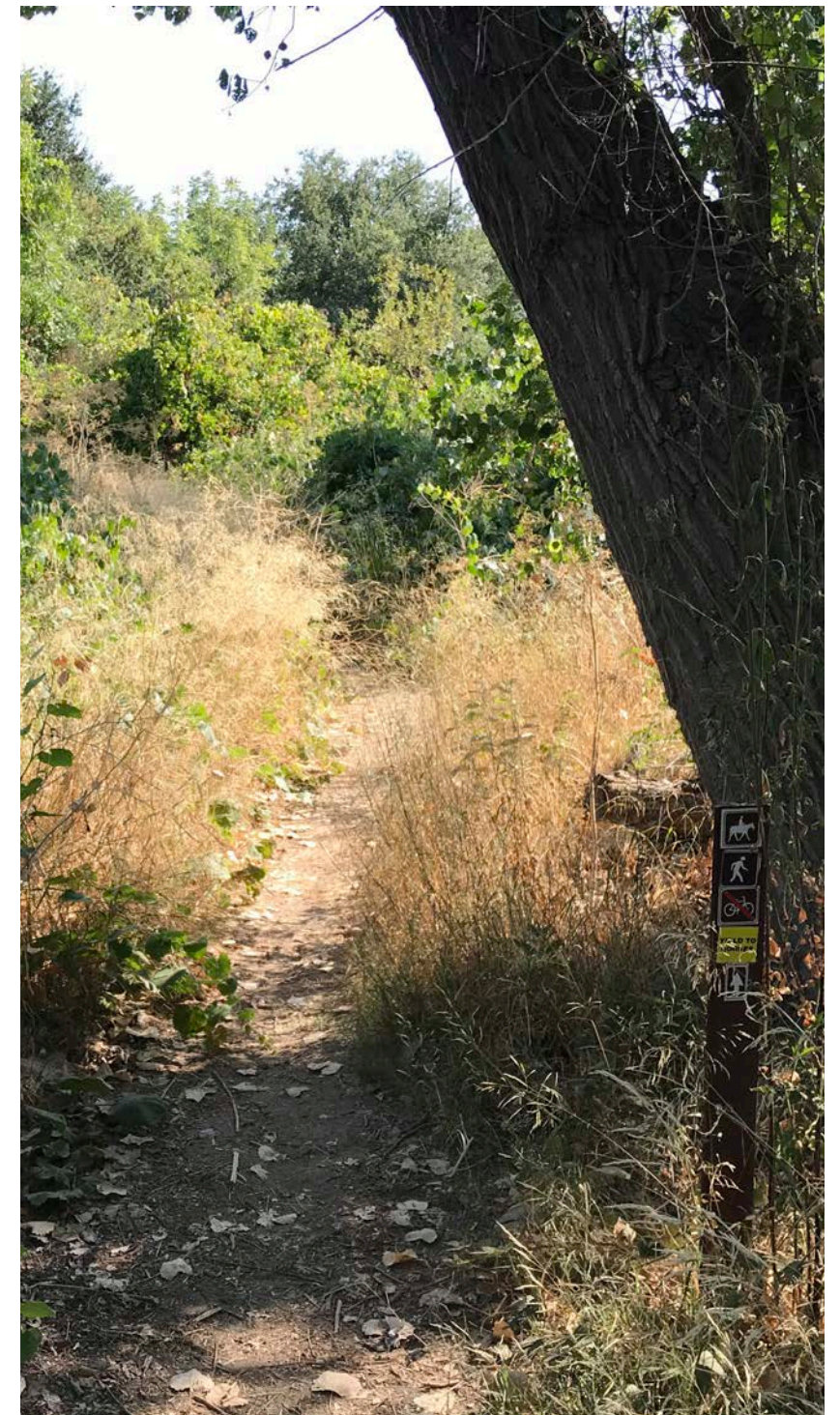
3.4.6 Howe Avenue Area

The Howe Avenue Area is located between the Howe Avenue Bridge on the west and an extension of Occidental Drive on the east. The eastern portion of the south bank and the entire stretch of the north bank are mostly undeveloped and are anticipated to remain undisturbed aside from visitor use of designated trails (Sacramento County 2008a).

Vegetation communities in the Area include developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, turf/turf with trees, and unvegetated.

The Howe Avenue Area supports boating, swimming, fishing, pedestrian, biking, equestrian, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as car-top boat launches and boat ramps, equestrian staging, restrooms, drinking fountains, and public parking (Sacramento County 2008a).

Howe Avenue contains two clusters of electrical power transmission towers, one on the north bank and one on the south bank adjacent to the Howe Avenue Bridge. The Howe Avenue Bridge, a vehicle, pedestrian, and bicycle bridge, forms the Area’s western boundary (Sacramento County 2008a).



*Equestrian trail and trailhead in the Howe Avenue Area.
Photo Credit: Regional Parks*

3.4.7 Watt Avenue Area

The Watt Avenue Area is a popular and heavily-used recreation-centered area in the Parkway (Regional Parks 2019). It includes the north and south riverbanks between the Howe Avenue Area to the west and the SARA Park Area to the east. The Watt Avenue Bridge centrally traverses the Area.

Vegetation communities in the Area include developed, gravel bar chaparral, open water, riparian woodland/forest, riparian scrub, turf/turf with trees, and unvegetated.

The Area supports pedestrian, biking, equestrian, boating, swimming, fishing, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as car-top boat launches, boat ramps, restrooms, and public parking (Sacramento County 2008a).

The Watt Avenue Bridge runs in the east-west direction and provides for pedestrian, bicycle, and vehicle travel over the Area (Sacramento County 2008a). A stormwater drainage main discharges into the river via an outfall structure on the north bank several hundred feet from the Area's downstream boundary.

3.4.8 SARA Park Area

The SARA Park Area is partially developed due to dense habitat composition and terrain limitations (Sacramento County 2008a). It is bounded by a drainage sump and pumping plant drainages to the west and the Harrington access road and a private property line to the east. The SARA Park Area, in addition to SARA Park proper, is comprised of two subareas: Gristmill and Rio Americano.

The original SARA Park site, located along the south bank of the river, contains small beaches and dense riparian vegetation. The Gristmill access area is adjacent to and east of the SARA Park site, and contains a bluff, a cobblestone bar, and numerous secluded waterfront areas (Sacramento County 2008a). The Rio Americano subarea is located north of the river and is characterized by islands, side channels, and wetland areas (Sacramento County 2008a).

Vegetation communities in the Area include developed, elderberry scrub, open water, riparian woodland/forest, riparian scrub, unvegetated, and valley foothill grassland.

The SARA Park Area supports boating, fishing, picnicking, pedestrian, biking, equestrian, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, as well as car-top boat launches and picnic tables (Sacramento County 2008a).

The Regional San Northeast Interceptor, a sewer gravity interceptor, crosses from Arden Bar into the SARA Park Area underneath the river and then exits the SARA Park Area south toward Folsom Boulevard (Regional San 2013). SARA Park contains considerable stormwater infrastructure, including terminal portions of approximately one dozen drainage mains and accompanying outfall structures. Several of these structures discharge directly into the river.



TOP Aerial view of the Watt Avenue Area. Photo Credit: Josh Hannon
BOTTOM Parkway users taking in the river scenery in the SARA Park Area. Photo Credit: Wildlife Conservation Board



3.4.9 Arden Bar Area

The Arden Bar Area supports relatively high recreational use (Sacramento County 2008a). Arden Bar is located between the SARA Park Area to the west and the river to the south and east. This Area is comprised of two subareas: the Harrington Access area and the William B. Pond Recreation area.

The Harrington Access area is located on the north bank directly adjacent to the Rio Americano area. It is popular with boaters and rafters, as it contains a relatively large parking area, accessible beaches, and easily navigable river currents. The William B. Pond Recreation area is located on the site of a former gravel mine quarry. Reclamation of the site has created a large pond that provides habitat for warm-water fish and a northeastern area with intermittent backwater depressions created by mine tailings (Sacramento County 2008a). The western part of the subarea contains popular recreational facilities and a parcel that was formerly occupied by a Regional San sewer treatment plant that is currently leased to the Sacramento County Sheriff's Department.

Vegetation communities in the Area include developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, turf/turf with trees, and valley foothill grassland.

The Arden Bar Area supports boating, fishing, pedestrian, biking, equestrian, and nature-appreciation activities. It supports field sports and small special events with multiple and single use trails for hiking, biking, and equestrian activities, car-top boat launches, picnic areas with picnic tables, barbeque facilities, equestrian staging areas, restrooms, and public parking (Sacramento County 2008a).



Emergent vegetation in Arden Bar pond in the Arden Bar Area. Photo Credit: MIG

Arden Bar contains multiple power transmission poles and accompanying power lines. Several wastewater intake structures are in the Arden Bar Area, both at and outside of the former site of the sewer treatment plant. Wastewater is transported from the Arden Bar Area to the SARA Park Area and then south toward Folsom Boulevard through the Regional San-maintained Northeast Interceptor (Regional

San 2013). A drainage main discharges runoff from an outfall structure near the Area's turf game fields.

The Harold Richey Memorial Bicycle Bridge connects the Arden Bar and River Bend Park Areas, and provides a pedestrian and bicycle crossing over the river (Sacramento County 2008a).

3.4.10 River Bend Park Area

The River Bend Park Area's central location in the Parkway, numerous recreational amenities, important natural features (including federally-designated critical VELB habitat), and interpretive/educational facilities make it one of the most diverse Areas in terms of land uses (Sacramento County 2008a). Notable facilities include Soil Born Farms, an urban agriculture and education farm and center located at the American River Ranch, and the River Bend Outdoor Education Site, which provides an outdoor classroom with an amphitheater, picnic tables, shade structures, and a campfire pit. Additional features in the River Bend Park Area include a large sand bar, a native plant nursery, and resource mitigation sites (American River Parkway Foundation (ARPF) 2019). River Bend Park proper is located between Arden Bar and the river to the west, and the river and a residential community to the east.

Vegetation communities in the Area include agriculture, developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.

Most of the western portion of the Area is federally-designated VELB habitat (Sacramento County 2008a). Much of the eastern portion of the Area is former farmland that has since been repurposed. Cordova Creek, a former concrete stormwater outfall channel, has been partially restored to a riparian corridor (Sacramento County DWR 2019).

River Bend Park supports boating, fishing, picnicking, camping, pedestrian, biking, equestrian, interpretive, small special event, and nature-appreciation activities. Recreational facilities include multiple and single use trails for hiking, biking, and equestrian activities, as well as car-

top boat launches, interpretive centers, outdoor classrooms, amphitheater structures, day camping areas, picnic areas with picnic tables, barbeque facilities, equestrian staging areas, restrooms, and public parking (Sacramento County 2008a; Regional Parks 2019).

Regional San operates a pump station in River Bend Park adjacent to Hagan Park, a Rancho Cordova city park (Sacramento County 2008a). Several power transmission poles, along with ancillary power lines, are located along a bicycle path north of the pump station. Several stormwater outfall structures discharge runoff into the Area near the river.

The Harold Richey Memorial Bicycle Bridge provides pedestrian and bicycle passage over the river between the Arden Bar and River Bend Park Areas (Sacramento County 2008a).

3.4.11 Sarah Court Access Area

The Sarah Court Access Area provides a contained gathering space and access point for Parkway visitors. It is located across the river north of River Bend Park and to the southwest of Ancil Hoffman County Park.

Vegetation communities in the Area include developed, open water, and turf/turf with trees.

The Sarah Court Access Area contains a beach with an access ramp. It supports pedestrian, picnicking, nature appreciation, fishing, and beach-related recreational activities, such as swimming. Recreational facilities include picnic tables and a seasonal public parking area (Sacramento County 2008a).



TOP California Native Plant Society Elderberry Farms Native Plant Nursery at Soil Born Farms in the River Bend Park Area. Photo Credit: Wildlife Conservation Board

BOTTOM Cordova Creek and adjacent plantings associated with the American River Ranch in the River Bend Park Area. Photo Credit: Regional Parks



3.4.12 Ancil Hoffman County Park Area

The Ancil Hoffman County Park serves as a focal point for interpretive programming and provides plentiful, varied recreational amenities (Sacramento County 2008a). The Park is located on the river's north bank to the northeast of River Bend Park. It resides in an alluvial floodplain historically used for farming and now occupied by the Ancil Hoffman Golf Course, Effie Yeaw Nature Center, and other facilities. The Area contains bluffs that front the river, a natural drainage course named Carmichael Creek, and several graveled beaches.

Vegetation communities in the Area include developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.

The westernmost area of the Park contains critical VELB habitat (Sacramento County 2008a). Carmichael Creek runs through the Area in between the golf course and the Effie Yeaw Nature Center's Nature Study Area lands and empties into the river (Sacramento County DWR 2019). The Nature Study Area contains a small pond supplied with pumped water.

Ancil Hoffman County Park supports numerous recreational activities, including golfing, boating, fishing, pedestrian, biking, equestrian, picnicking, field sport, small special event, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, car-top boat launches, golf courses, game fields, interpretive centers, interpretive areas (including cultural demonstration areas), picnic areas with picnic tables, barbeque facilities, equestrian staging areas, restrooms, and public parking (Sacramento County 2008a).

The Area contains several electrical power poles and accompanying power lines near its southern boundary. A drainage main runs through the northwestern portion of the golf course and discharges into an area containing riparian vegetation. The Area also contains a SASD pumping station and sewer pipelines that run along the northern Area boundary, through the golf course, and around the golf course's ancillary buildings.

3.4.13 Rossmoor Bar Area

What is now the Rossmoor Bar Area was one of the first sites of mining activity in the Parkway. Rossmoor Bar is located between Ancil Hoffman County Park to the west and the Lower Sunrise Area to the east. Notable natural features in the Area are the John C. Mullaney Grove--where native oaks have grown in previously dredged areas and densely vegetated pools provide unique wildlife habitat with clay banks near the Area's eastern end and a large oak woodland restoration area. In addition, the Carmichael Irrigation District owns and maintains large water intake structures situated near the river in the northwest portion of the Area (Sacramento County 2008a).

Vegetation communities in the Area include developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, turf/turf with trees, unvegetated, and valley foothill grassland.

Rossmoor Bar contains critical habitat for VELB along its western and eastern boundaries (Sacramento County 2008a).

The Rossmoor Bar Area supports boating, swimming, fishing, pedestrian, biking, equestrian, and nature-appreciation activities. It contains multiple and single use trails for hiking,



TOP Bridge over Carmichael Creek in the Ancil Hoffman County Park Area. Photo Credit: MIG

BOTTOM Car top boat launch located in the Rossmoor Bar Area. Photo Credit: MIG

biking, and equestrian activities, car-top boat launches, restrooms, and public parking (Sacramento County 2008a).

Several runoff drainage mains discharge into the southwestern portion of the Area. In addition, SASD sewer pipelines run almost parallel to the Area's southeast-southwest boundary. The pipelines eventually lead to the Regional San pump station in River Bend Park.

3.4.14 San Juan Bluffs Area

The San Juan Bluffs Area contains carefully maintained bluffs with average slopes of 70 percent. The bluffs are located across the river north of the Rossmoor Bar Area in between Ancil Hoffman County Park and the Sacramento Bar Area. Numerous private residences abut the Area along its northern boundary. Because the Area is particularly subject to erosion, development and recreational activities are prohibited and maintenance activities are closely monitored (Sacramento County 2008a).

Vegetation communities in the Area include developed, open water, and riparian woodland/forest.

The San Juan Bluffs Area contains a SASD pumping facility and sewer lines in an interior segment inland from the bluffs. In addition, several drainage mains discharge into the same interior segment. .

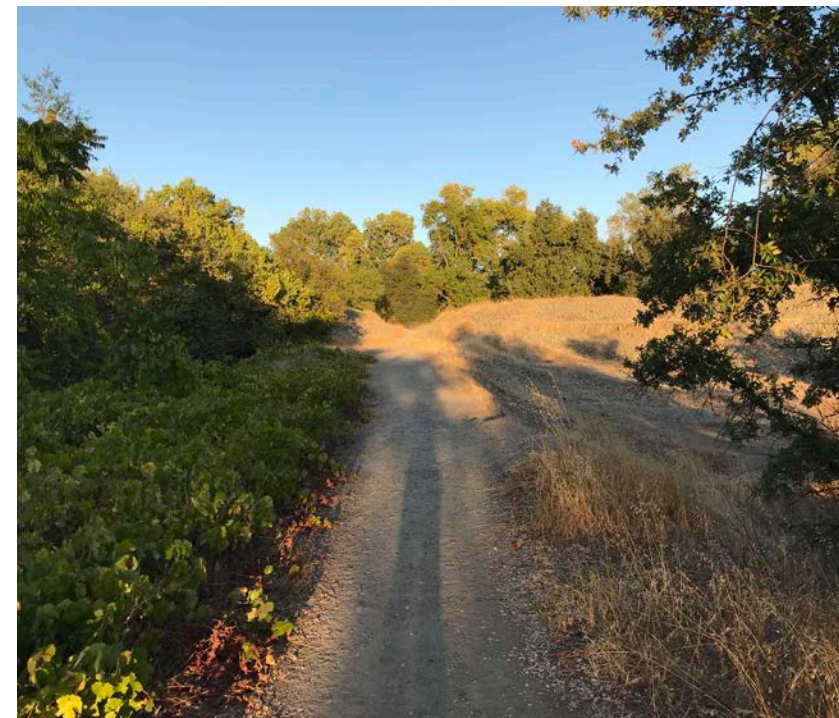
3.4.15 Sacramento Bar Area

The Sacramento Bar Area's geomorphological features include multiple large fishing ponds formed from dredge tailings, making it a popular destination for fishing. The Area is situated on the north side of the river across from the Lower Sunrise Area. Much of the Area has been disturbed by historical gravel mining activities. Most of the Area's recreational facilities are concentrated in the eastern corner of the Area near the Jim Jones Bridge (Sacramento County 2008a). The Sacramento Waldorf School, a private use, borders Sacramento Bar to the northwest. Minnesota Creek extends into the Parkway near the Waldorf School adjacent to the Area's northern boundary.

Vegetation communities in the Area include developed, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, and unvegetated.

The Sacramento Bar Area supports boating, swimming, fishing, picnicking, pedestrian, biking, equestrian, and nature-appreciation activities. Recreational facilities include multiple and single use trails for hiking, biking, and equestrian activities, car-top boat launches, equestrian staging areas, picnic areas with picnic tables, barbeque facilities, restrooms, and public parking (Sacramento County 2008a).

Sacramento Bar contains several SASD sewer pipelines that traverse the Area parallel to its northern boundary. Several drainage mains originating north of the Parkway discharge into Minnesota Creek. The Jim Jones Bridge provides pedestrian and cyclist passage over the river between the Sacramento Bar and Lower Sunrise Areas (Sacramento County 2008a).



TOP The LAR channel and bluffs of the San Juan Bluffs Area.
Photo Credit: MIG

BOTTOM Maintenance road in the Sacramento Bar Area.
Photo Credit: Regional Parks



3.4.16 Lower Sunrise Area

The Sunrise Recreation Area is divided into the Lower Sunrise and Upper Sunrise Areas and represents a largely developed area of the Parkway in which recreational facilities are a main source of attraction throughout the year. The Lower Sunrise Area comprises substantial valley oak habitat with a central picnicking area. It contains a combination of steeply and gently sloping riverbanks (Sacramento County 2008a).

Vegetation communities in the Lower Sunrise Area include developed, elderberry scrub, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, turf/turf with trees, and unvegetated.

The Lower Sunrise Area contains critical VELB habitat in its southwestern half, and supports boating, fishing, pedestrian, biking, equestrian, picnicking, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, car-top boat launches, equestrian staging areas, picnic areas with picnic tables, restrooms, and public parking (Sacramento County 2008a).

The Jim Jones Bridge transports pedestrians and bicycles across the river between the Sacramento Bar and Lower Sunrise Areas. The Sunrise Boulevard Bridge, a vehicle, pedestrian, and bicycle bridge, forms the boundary between Lower Sunrise and Upper Sunrise (Sacramento County 2008a).

The Lower Sunrise Area contains six power poles along Sunrise Boulevard. Additional infrastructure includes two drainage mains that enter and discharge into the Area, one of which empties into the river, and SASD sewer lines.



Valley oak trees and egret resting on in-channel island in the Lower Sunrise Area. Photo credit: Regional Parks

3.4.17 Sunrise Bluffs Area

The Sunrise Bluffs Area is a narrow band of bluffs to which very limited pedestrian access is allowed and where high erosion potential precludes development. The Area contains bluffs with 100 percent slopes located on the north side of the river opposite the westernmost portion of Upper Sunrise (Sacramento County 2008a). The Sunrise Bluffs provide viewing points where visitors can observe the natural, scenic beauty of the upper reaches of the Parkway.

Vegetation communities in the Area include developed, gravel bar chaparral, open water, and oak woodland/forest.

A foot trail beginning near the Fair Oaks Bridge provides access to the Area and connects it to Fair Oaks Bluff (Sacramento County 2008a). No other recreational facilities are supported.

Infrastructure in the Sunrise Bluffs Area includes a SASD pump station and small portions of SASD sewer lines within the Area's interior.

3.4.18 Upper Sunrise Area

The Upper Sunrise Area is developed with recreational facilities and public agency offices, and contains a combination of steeply and gently sloping riverbanks (Sacramento County 2008a).

Vegetation communities in the Upper Sunrise Area include developed, elderberry scrub, foothill pine, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, unvegetated, and valley foothill grassland.

The Upper Sunrise Area has garnered the attention of organizations and agencies with botanical interests as it is the only Area of the Parkway containing the botanically-diverse foothill pine (FP) vegetation community, which is distinct from other vegetation types in the Parkway. In addition, Buffalo Creek enters the Parkway in Upper Sunrise and discharges into the American River just east of the Sunrise Boulevard Bridge (Sacramento County DWR 2019). This Area contains the CDFW Regional Headquarters, the Nimbus Fish Hatchery, and the American River Hatchery immediately southwest of Hazel Avenue (Sacramento County 2008a).

The Upper Sunrise Area supports boating, fishing, pedestrian, biking, equestrian, and nature-appreciation activities. It contains multiple and single use trails for hiking, biking, and equestrian activities, car-top boat launches, boat ramps, equestrian staging areas, restrooms, and public parking (Sacramento County 2008a).



Aerial view of the Upper Sunrise Area (photo right). Photo Credit: Josh Hannon

The Sunrise Boulevard Bridge, a vehicle, pedestrian, and bicycle bridge, forms the boundary between Lower Sunrise and Upper Sunrise (Sacramento County 2008a). The Old Fair Oaks Bridge, a pedestrian and bicycle bridge, crosses over the river in the Upper Sunrise Area several hundred feet east of Sunrise Boulevard (Sacramento County 2008a).

The Hazel Avenue Bridge forms part of the upstream boundary of Upper Sunrise and marks the boundary of the Parkway and the transition between the Regional Parks and State Parks-maintained segments of the Parkway (Sacramento County 2008a). It provides for vehicle, pedestrian, and bicycle passage over the river.



3.4.19 Sailor Bar

The Sailor Bar Area contains dredge tailings from historic gold mining operations, high bluffs in the north, and hundreds of acres of vegetated ravines (Sacramento County 2008a). The Area attracts visitors looking for fishing, small watercraft launching, and wildlife viewing spots. The Area is located on the north bank between the Sunrise Bluffs to the west and Hazel Avenue to the east.

Vegetation communities in the Area include developed, elderberry scrub, gravel bar chaparral, open water, oak woodland/forest, riparian woodland/forest, riparian scrub, unvegetated, and valley foothill grassland.

Three unnamed drainages enter the Area at different points along its northern boundary. One of these channels is a mapped, unnamed creek that runs along the western boundary of the Area and discharges into the river (Sacramento County DWR 2019). The second drainage enters the Area to the east of the unnamed creek and feeds into the creek. The third drainage channel discharges into a manmade pond located in the northern portion of the Area.

The Sailor Bar Area supports boating, fishing, swimming, picnicking, pedestrian, equestrian, and nature-appreciation activities. Recreational facilities include multiple and single use trails for hiking and equestrian activities, as well as boat ramps, equestrian staging areas, picnic areas, restrooms, and public parking (Sacramento County 2008a).

A SASD sewer pump station is located adjacent to Olive Avenue near the Area's eastern boundary and SASD sewer pipelines traverse the northern half of the Area. Additional infrastructure includes a drainage main that discharges into one of the unnamed drainage channels identified above, and several other outfall structures.

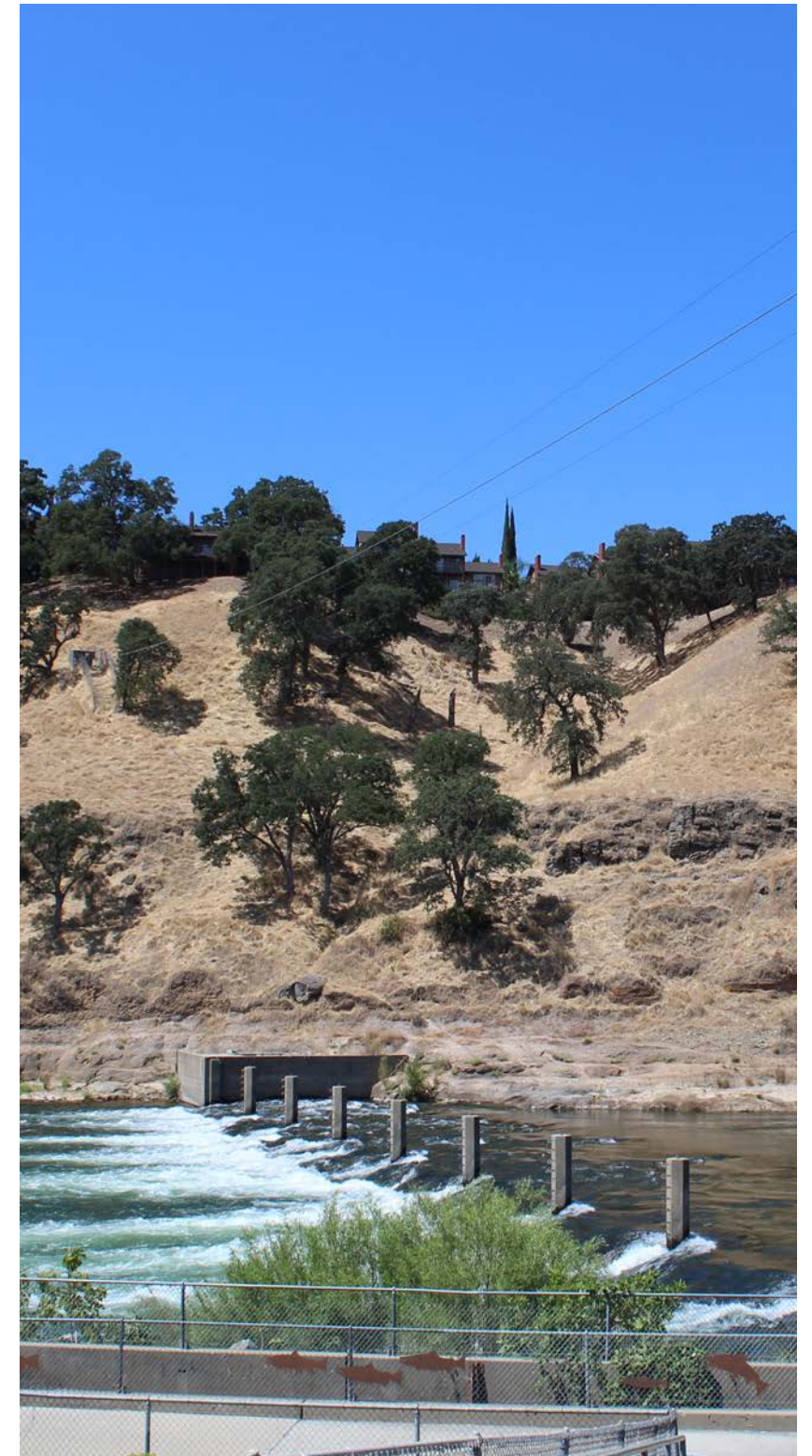
Hazel Avenue, including the Hazel Avenue Bridge, a vehicle, pedestrian, and bicycle bridge, forms part of the upstream boundary of the Sailor Bar Area (Sacramento County 2008a).

3.4.20 Lake Natoma

The Lake Natoma Area is included within this section for reference only. It is federal land administered by USBR and managed through an agreement by State Parks. The Lake Natoma Area includes 1,600 acres of land and 500 acres of water located between Hazel Avenue and the Folsom Dam (Sacramento County 2008a). Lake Natoma is a narrow lake approximately 4.5 miles long. The Lake Natoma Area is managed according to a different set of land use designations than those of the rest of the Parkway; these land use "categories" include Recreation, Conservation, Preservation, and Administration. (Sacramento County 2008a).

Key recreational areas are the CSUS Aquatic Center, Negro Bar, Nimbus Flat, Mississippi Bar, Lake Overlook, and Willow Creek. Depending on the management area, users can enjoy many of the same recreational activities supported throughout the rest of the Parkway, including boating, fishing, hiking, biking, horseback riding, picnicking, camping, and more (Sacramento County 2008a).

Though the Lake Natoma Area and the Regional Parks-managed Areas of the Parkway contain similar natural features and recreational facilities, the Lake Natoma Area is meant to accommodate the recreational enjoyment of regional and state travelers more so than that of the locals of the Sacramento area. Both the Lake Natoma Area and the Regional Parks-managed Parkway Areas balance the provision and development of recreation with the protection and enhancement of natural and cultural resources.



Condominiums atop bluffs in the Sailor Bar Area. Photo Credit: MIG

3.5 REGIONAL CONSERVATION CONTRIBUTION

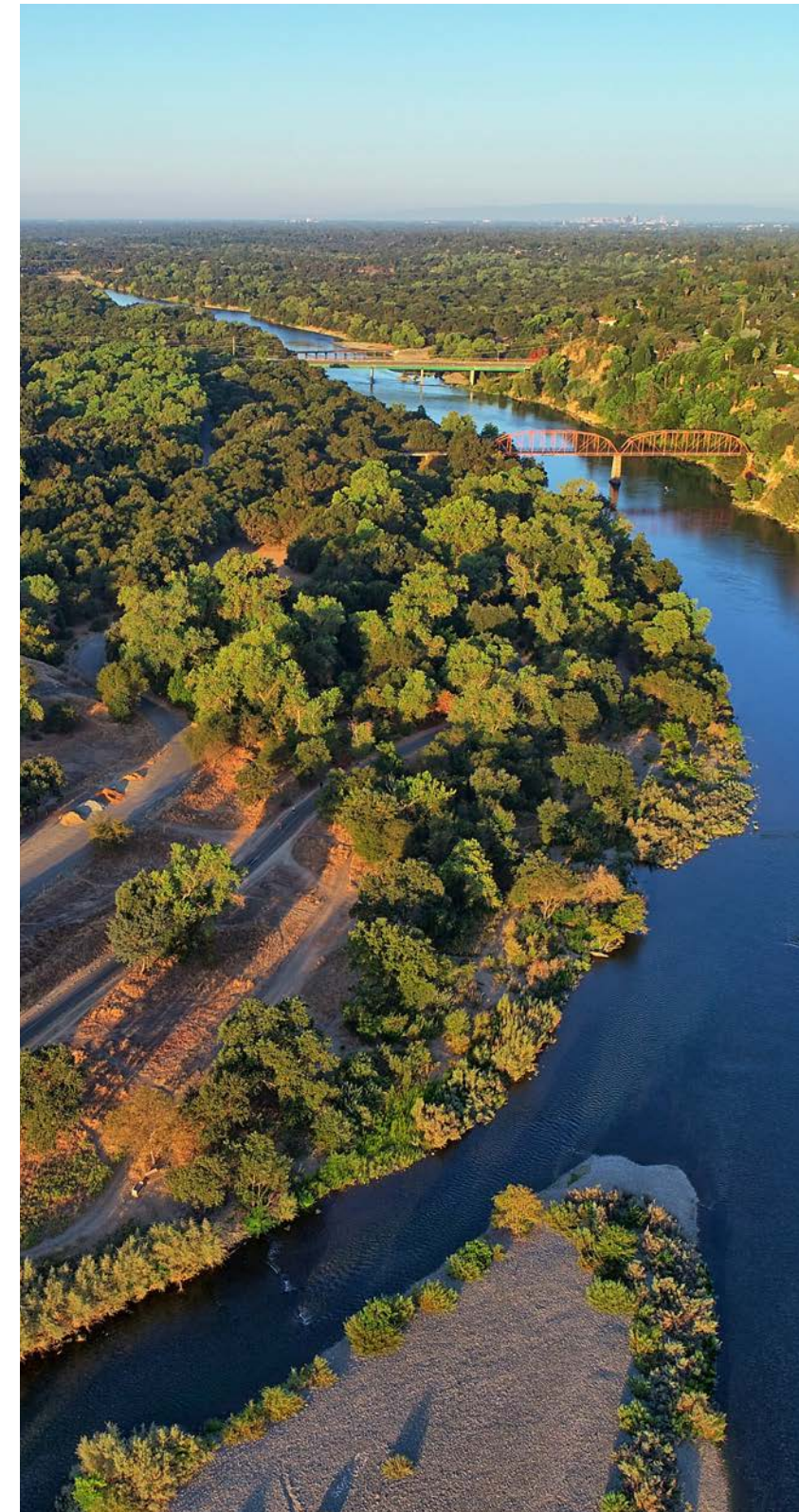
The American River Parkway has been described as the “crown jewel” of the Sacramento County Park System (SARA 2019). Its aquatic, biological, edaphic, mineral, and cultural resources provide a wide array of services to the region, including fish and wildlife habitat, drinking water, scenic vistas, and recreational opportunities. The goals, policies, and objectives of the Conservation Element of the Sacramento County General Plan recognizes the need for effective conservation practices within the Parkway and are designed to manage and protect its natural resources for the use and enjoyment of present and future generations while maintaining the long-term ecological health and balance of the environment.

3.5.1 Conservation Plans

Although none occur within the Parkway boundary, four regional habitat conservation plans (HCPs) occur within the immediate vicinity of the Parkway. They include the 1) Natomas Basin Habitat Conservation Plan (HCP); 2) Yolo Natural Heritage Program Natural Community Conservation Plan (NCCP)/HCP; 3) Bay/Delta NCCP/HCP; and 4) South Sacramento HCP. These HCPs were developed and implemented to protect, conserve, and enhance natural resources such as soil, water, and air. In addition, they protect dozens of special status plant and animal species and their associated natural habitats. Guiding principles for these HCPs include minimizing habitat fragmentation, protecting watershed-level ecosystem functions, establishing preserves to protect irreplaceable and threatened resources, minimizing edge effects, employing setbacks between urban development and biological resources,

encouraging heterogenous land uses to provide habitat diversity for shifting species needs in response to predicted climate change scenarios, and maintaining sufficient population distribution to sustain effective movement and genetic interchange of organisms between habitat areas. To accomplish these goals, conservation efforts typically focus on establishing a robust reserve system, restoring natural communities, and managing and enhancing the system of onsite reserves.

The California State Wildlife Action Plan (SWAP, CDFW 2015) is a statewide conservation plan developed to assess the health of California’s wildlife and habitats, identify the problems they face, and outline the actions needed for long-term conservation of those resources. The Parkway resides in the Sacramento Valley subregion of the Central Valley and Sierra Nevada Province of the SWAP. Habitat conservation targets identified in the Parkway region include freshwater marsh and American southwest riparian forest and woodland. Within the Parkway, freshwater marsh habitats surround streams, rivers, lakes, and wet meadows in areas that are periodically saturated or flooded. Dominant species include rushes, reeds, grasses, and sedges. American southwest riparian forests and woodland habitats are found in permanently moist or riparian settings where sub-surface water is present throughout the year. Diagnostic species found in these forests and woodlands include Fremont cottonwood, black willow, red willow, California sycamore, California wild grape, narrow-leaf willow, button-bush, and spice bush. The Key Ecological Attributes (KEAs) identified for conservation targets within these habitats include the area and extent of the community, hydrological regime,



Aerial view of the Upper Sunrise Area. Photo Credit: Josh Hannon



habitat connectivity, successional dynamics, community structure and composition, soil quality and sediment deposition regime, and surface water flow regime.

SWAP outlines key pressures on conservation targets within the Sacramento Valley subregion. These pressures come from negative stressors associated with anthropogenic or natural drivers that strongly influence the health of the subregion. Stressors present within and adjacent to Parkway lands include climate change, commercial and industrial areas, housing and urban areas, dams and water management/use, household sewage and urban wastewater, invasive plants/animals, transportation corridors, and utility lines. SWAP proposes to reduce these pressures through a series of conservation strategies and goals, such as increasing acreage of functional and connected target habitats, improving natural hydrologic regimes, decreasing total dissolved solids in waters, encouraging population growth of target species, and more. To accomplish these goals, SWAP encourages public outreach and education, data collection, land acquisition, law and policy amendment, management plan development, and economic incentive opportunities.

3.5.2 Special-Status Species and Natural Communities

Five special-status plant species and forty-one special-status animal species identified by the US Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and California Native Plant Society (CNPS) have the potential to occur within natural communities found in the Parkway. Natural vegetation communities include all Parkway habitats except for ‘developed’, ‘agriculture’, and ‘turf’ communities. The Discovery Park, Rossmoor Bar, and Woodlake Area Plans contain the largest extent of natural communities and



Interpretive panel along restored Cordova Creek in the River Bend Park Area. Photo Credit: Wildlife Conservation Board

sensitive species habitat. The Parkway also contains USFWS Critical Habitat for valley elderberry longhorn beetle (VELB), chinook salmon, and steelhead.

3.5.3 Habitat Connectivity

Habitat connectivity refers to the extent to which separate patches of habitat are in contact and able to exchange genes and other crucial biological information throughout the region. For example, the American River provides National Oceanic and Atmospheric Administration (NOAA) Fisheries Essential Fish Habitat (EFH) for Chinook salmon as the river waters and substrate are necessary for spawning, breeding, feeding, and growth. Protecting and restoring EFH helps to maintain productive fisheries and rebuild depleted fish stocks.

Northern Sierra Nevada foothills wildlife linkages and landscape blocks occur within the Parkway, according to the CDFW Northern Sierra Nevada foothills wildlife connectivity model and California Essential Habitat Connectivity (CEHC) project (CDFW 2012; CDFW 2010). The lands upstream of the Lower Sunrise and Sacramento Bar Area Plans form a portion of wildlife linkage B66_B16, which represents an ecologically significant wildlife movement pathway for acorn woodpecker, California ground squirrel, California quail, Cooper’s hawk, pallid bat, wood duck, and yellow-billed magpie. Similarly, the Campus Commons Area Plan, and large portions of the Parkway upstream of the Watt Avenue Area Plan, are part of American River Parkway landscape block. Landscape blocks are those areas that act as corridors for potential wildlife movement between habitat areas.

3.6 CLIMATE CHANGE

Climate change is caused by the accumulation of greenhouse gases in the atmosphere (CACCC 2019). When greenhouse gas emissions generated by human activities combine with water vapor, this prevents some of the sun's energy from escaping the atmosphere. This process traps heat and creates a warming effect referred to as the enhanced greenhouse effect (NAP 2001). Warming temperatures can affect the balance of the Earth's natural systems, resulting in warmer oceans, sea-level rise, extreme weather events, and increased occurrence of drought and wildfires (NASA 2019). As a result, climate change has the potential to dramatically alter riverine ecosystems mainly due to their connection to the hydrological cycle. In California, about 75 to 80 percent of the freshwater supply comes from the Sierra Nevada snowpack. Normally, the snowpack melts at a gradual rate; however, rising temperatures could cause the snowpack to melt earlier or all at once. This, in combination with infrequent or earlier occurrences of precipitation, could result in increased flooding and/or drought during certain seasons (CFCC 2019). As such, it is likely that water flows will increase in the spring as Folsom Dam conducts water releases to ensure adequate capacity for flood management. In addition, early snowmelt could result in minimal flows by late-summer and fall.

Extreme flooding may erode sediment and vegetation within the river channel, resulting in increased areas of bare ground with less habitat value and unsuited to support various sensitive species (Geological Society of America 2018).

Removal of riparian vegetation impacts water temperatures as more direct energy from the sun is radiated to the water's surface. Species that require colder water temperatures will continue to seek out deeper, colder areas upstream; however, if these areas are fragmented (e.g., by a dam) some species may be unable to migrate to cooler temperatures, resulting in changes in species and habitat use dynamics (Pletterbauer, Melcher, and Graf 2018).

Terrestrial species will likely face challenges from rising temperatures. In general, warming temperatures alter ecosystem functions and may result in the forced departure of certain native species and the proliferation of more opportunistic species (Environmental Protection Agency (EPA) 2017). In addition, many wildlife and plant species have life cycles directly linked to seasonality. Shifts in the duration of seasons, such as shorter and warmer winters, could impact the migration, blooming, and reproduction periods of certain species and, ultimately, food web dynamics (EPA 2017).

Changes in weather patterns may also impact park use dynamics. The Sacramento Valley is likely to experience increased severe hot weather conditions. In addition, milder winter temperatures may contribute to an extended "summer" season and, consequently, an increase in recreational use during wintertime (Dolesh 2017). Milder winter temperatures would result in warmer waters, which in turn would be conducive to increased water-oriented recreational activity, such as swimming and river rafting.

Climate change is a significant issue both locally in the Parkway and internationally. Increased global temperatures are expected over time as a result of an increase in carbon dioxide and other greenhouse gases in the atmosphere (United Nations 2019). The anticipated increase in global temperatures would have varying effects throughout the world. Although it is impossible to predict with great precision what would occur in the Parkway, it is anticipated that there will be an increase in extreme weather events and likely warmer summers and milder winters. It is out of the purview of the NRMP to address the underlying causes of climate change. As such, no management or implementation actions to address climate change are made in this document. Regardless, climate change will likely be a driver of future changes in the Parkway relative to both the impact on local species and habitat, and as an antecedent to future increases in wildland fire frequency and intensity.